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ABSTRACT

This report contains the notes and elements for 6 lectures that were given by Victor de Pange, head of the Division for Higher Education and Research of the Council of Europe at the University of the Pacific during January of 1971. The first lecture was devoted to student protests, using the 1968 events as a starting point. It examines whether these protests were a result of educational grievances, a criticism of society, or constructive opposition; it also attempts to explain the reasons for the protests. Chapter II deals with the response of European universities to the new situation, specifically of institutions in France, the United Kingdom, Germany, and the Scandinavian countries. This chapter also discusses a report on policy and planning for post-secondary education in Europe, the theme of the 7th Conference of European Ministers of Education to be held in Brussels in May 1971. The report covers policy objectives and constraints, system objectives and social goals, structural and institutional changes, financial and economic aspects, organization for learning, and the government of post-secondary education. Chapter III deals with "permanent education" and discusses 3 essays: "Permanent Education - An Agent of Change," by H. Janne; "A Model for Recurrent Education," by O. Palme; and "Towards the Construction of a System of Permanent Education," by J. Capelle. (AF)

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UNIVERSITY OF THE PACIFIC Stockton, California

# UNIVERSITY AND SOCIETY IN EUROPE

## (A PROSPECTIVE VIEW)

Notes and Elements for six lectures given by

**Victor de Pange**
**D. Phil Oxford**

HEAD of the DIVISION for HIGHER EDUCATION and RESEARCH
of the COUNCIL of EUROPE

January 1971

1851

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# UNIVERSITY AND SOCIETY IN EUROPE

## A Prospective View

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Notes and Elements for

Six lectures given in January, 1971, at
The University of the Pacific, (California).

by

VICTOR de PANGE

D. Phil (Oxford)

Head of the Division for Higher Education and Research
of the Council of Europe

1851

**UNIVERSITY OF THE PACIFIC**

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OFFICE OF THE PRESIDENT

## PREFACE

Throughout its history the University of the Pacific has had an abiding concern for the relationship between higher education and society. The recently-established international programs of the University of the Pacific are evidence of both this concern and the desire of the University to contribute positively to the global society in which all institutions of higher learning increasingly take part.

I am honored to welcome M. Victor de Pange to our University to discuss with our faculty and students the problems and prospects of higher education in Europe. The series of lectures delivered by M. de Pange during the first Winter Term of our College of the Pacific defines many aspects of these problems. His analysis challenges us all to continue to examine the relationship between the University and society.

Moreover, he has provided a unique occasion for our scholars to analyze issues in higher education common to both the United States and Europe. The University of the Pacific is pleased to make these lectures available to readers who could not hear the lectures in person.

Cordially,

Robert E. Burns

Robert E. Burns
President

January 1971

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# INTRODUCTION

When I first mentioned to members of the Committee for Higher Education and Research of the Council of Europe that I had offered "University and Society" as a subject for the lectures I had been invited to give at the University of the Pacific, they told me that I should avoid using the word "reform" when speaking about universities. "Universities are not that bad" they told me. "The word 'reform' is used only by students"...

There is, of course, something to be said for this. But we can equally hold that we are witnessing in Europe a radical change in our outlook on life and society which affects the very soul of the university. How much of the old institutions will remain in the new ones after these changes have become effective? It may well be that the higher education system of tomorrow will have very little in common with the university of the past. If this is to be the case even the use of the word "university" might become confusing.

When we come to analysing higher education in Europe we are immediately confronted with a variety of situations. Problems vary in Europe not only from the western to the eastern part of the continent but also from country to country and often, within one country, from university to university.

I have deliberately taken the so-called "1968 events" as a starting point since those events had a considerable impact on public opinion both in Europe and in the United States. From then onwards a political atmosphere was created urging governments to take immediate action and hastening the realisation of plans which existed long before 1968.

My first lecture will be devoted to the students protest, whether it was the expression of unrest or of revolt.

I will then examine the reaction of universities and of governments to this new situation and concentrate on a few major examples in Europe taken from the French, British, German and Scandinavian systems of Higher Education. When dealing with these examples, I expect to concentrate on points which raise policy-making problems. Such conceptions, as comprehensiveness, diversification of higher education and permanent education, which are now widely accepted and which find their way into legislation, would not have been thought of only a few years ago.

A special organ has been set up within the Council of Europe to analyze and reinforce common trends in higher education by means of technical cooperation among member governments. This is the reason for the existence of the Committee for Higher Education and Research.

I am much indebted to all those who have helped me in the preparation of this work by providing me with ideas, facts and documentation. My grateful acknowledgement goes to members of the Committee for Higher Education and Research of the Council of Europe who have kindly provided me with material concerning their country. My colleagues in the General Secretariat have constantly given me their time and advice, put their experience at my disposal and offered me material assistance.

Free access to two main sources of documentation was a prerequisite for this work. First the material constantly kept up to date for the Committee for Higher Education and Research; secondly the basic information collected by the Documentation Centre for Education in Europe. My gratitude goes in particular to Mr. Bernard von Mutius, Head of the Division for Educational Documentation and Research who initiated me to the difficult field of education in Europe and sorted out the documents I needed.

These lectures are a direct consequence of the generous invitation extended to me be the University of the Pacific to come to Stockton. I, therefore, wish to thank very heartily Alistair W. McCrone, Academic Vice-President of the University of the Pacific for extending this invitation. Finally, it is my duty and pleasure to mention Clifford J Hand, Associate Dean of the College of the Pacific for having thought of his old friend from the days of the liberation of France, more than a quarter of a century ago.

Victor de Pange
Strasbourg, December, 1970

## I STUDENT REVOLT

(A challenge to University and to Society)

### A. A few remarks

This first lecture will be based primarily on the student revolt as a challenge to University and to Society. I am aware that this has already been the subject of many shrewd analyses but I can imagine no better way to explain the changes which are taking place in universities in Europe at present.

Some basic facts are necessary to justify the importance of what has happened. I will not go back further than the movement which started in Berkeley in 1966. The first symptoms of social discontent were felt as widely in the United States as they were to be in Paris and in other universities in Europe. We live in a world community but the United States are in many fields ten to fifteen years ahead of Europe. The same problems arise in the United States as in Europe but they are to be seen in a different light due to differences in civilisation. A European survey is therefore necessary to show the other side of the picture.

In this respect the "May 1968" events in France can serve as a useful starting point for understanding the phenomena of youth revolt against society. Rome and Berlin reacted in the same way as Berkeley and Paris.

At one of the main entrances of the University Buildings in Paris it could be read in French, painted in large block letters on the wall "Take my desires for reality because I believe in the reality of my desires".

This sentence summarises in a striking way the attitude of the students. If we could only know those "desires" we would understand the situation better. My purpose is to try and throw some light on a situation which looks so desperately complicated. There is indeed irony (and I must apologize for it), in treating as a university thesis a problem which is so essentially alive.

If we attempt to rationalize the questions and define them in as many words we can easily find good reasons to explain the students' unrest. It is almost a commonplace to say that students were convinced of a number of defects in our educational as well as in our social and political system. Let me recall these grievances.

1. The educational grievances were mainly the following:
   a) Hierarchical university system based on authority
   b) Enormous expansion of higher education
   c) Contents of curricula
   d) Methods of teaching
   e) Methods of examination

f) Too long periods of study
g) Impersonality of higher education
h) Condition of life in campuses
i) Lack of solid orientation and guidance
j) Structure of higher education
k) Relation between university and society

2. This list remains open and I will not attempt to complete it because we are aware that at least equal to the educational grievances the criticism of society played a large part in the students' unrest. These criticisms can be summed up as follows:

a) The "establishment"system
b) Lack of ideaology
c) Tyranny of technology
d) Inadequate position of students in Society
e) Uncertain prospects for future employment

3. It would be wrong to believe that the students only protested against something. There was also a positive and constructive opposition which we must take into account while drawing up this survey of the situation. The main demands and aims of the students corresponded naturally with the grievances listed above.

a) As regards the university they were based on the following fundamental reform of higher education:

i. Democratisation of higher education such as
  - free access for all to higher education
  - student participation in university affairs
ii More money for higher education
iii Reform of curricula
iv Reform of teaching methods
v Abolition of examinations
vi Reduction of study periods
vii More personal contacts between teachers and students
viii Academic freedom
ix Personal freedom
x Recognition of the political mandate of students
xi Immunity
xii Better orientation and guidance
xiii Reform of university structures

b) As for society it is interesting to note that though students were able to give rather a good analysis of present society and state what they no longer wanted, they found it difficult to say by what it should be replaced. The main demands in this field were:

i Elimination of the present social structure
ii Abolition of the present constitutional system
iii Transformation of university into a centre of revolutionary action to reform society
iv Greater influence of ideology
v Restrictions on mass communication (TV - Radio - Press)
vi Recognition of students as intellectual workers.

These lists are by no means exhaustive but it would serve little purpose to expand on them. I will rather concentrate on a number of aspects which seem important to clarify the problems.

My first point is that Europe should not be considered as a whole: the situation differs from country to country and often within one country from university to university.

Let us take a few examples:

In Scandinavia we might be led too readily to consider a lump situation. In fact Denmark (in this as in many other respects) was more "Continental" than the other Scandinavian countries in the nature of its student unrest. Sweden and Norway accelerated the process of democratisation which was already very advanced, but the students became opposed to some of the schemes for reform of higher education already under preparation or being tried out. In Norway, for instance, the purely material conditions (size of loans and scholarships) held a prominent place, but there were also criticism of the content of studies. Scandinavian students, as a whole, were responsive to specific problems such as in war in Vietnam, at least for the extremist group (though for their main support these have always had to exploit objectives nearer to them, such as rising rents for student's hotels and reforms of studies along lines confirming the freedom of students).

One of the most explosive situations would be found in Italy where the growth of the undergraduate population exceeds that of any other European country and where, at the same time, the university tradition is more rigidly frozen and more obedient to the "big bosses" than elsewhere.

We should also note the privileged position of Great Britain, where the independence of the universities is an age-old tradition; where the system of awards is particularly efficient; and where, although the number of students admitted into the universities is far smaller than in the other countries, the percentage of students who take a degree is very much larger.

France is a very typical case which will be dealt with at length separately.

Though it is not my purpose to examine the situation in countries outside the Council of Europe I should mention that the same problems occurred in those countries. In Yugoslavia, for instance, one of the main concerns of students seems to have been uncertainty with regard to future employment.

It is also necessary to remark, and this will be my second point, that quite a number of countries have not experienced a general and fundamental student revolt. French students more or less assumed that "May 1968" had changed the world. But even for students as close as Britain, these events had little significance. An analysis of why the student revolt did happen in some countries (France - Italy - Germany) should be accompanied by an analysis of why it did not happen as a general event in other countries (say Britain, Austria, Ireland). A distinction could be made between internal factors such as the antiquated and underequipped university structures in France and external factors such as the conflict of generations in Germany. There were also combinations of both. In Italy for instance, a general social and economic unrest coincided with an antiquated university structure. Similarly, the factors favouring peaceful change could be analysed with regard to the other countries: traditionalism (Britain: the art of associating, past and present small size of the university hence, no alienation (Austria), university autonomy and university as a means of expression of national identity (Ireland).

This leads me to my third point:

The traditional University has no more the monopoly of higher education. Through the various kinds of mass medias: (TV and soon the use of satellites for educational purposes) higher education is finding its way into individual life. We may, therefore, ask ourselves what, in the presence of the new technology, is the justification for retaining the university at all. Could not all teaching be done with packaged courses, all assessment by computers, all preparation of new courses and all research by special centres which have no teaching function? In fact, in some countries, the disappearance of the traditional university is already seriously considered (Sweden, Cuba). The answer to this question seems to be that there will remain the need to localize the university to give it identity and to plan carefully its minimum size and its maximum size (the lone student isolated in a language lab or library cubicle is as deterring a picture as the massive amphitheatre or the gigantic university hospital). But the creation of those units which enable the academic community to lead a full life (including not only young students and old professors, but also mid-career men and women interrupting their work with periods of study - permanent education) should not be the simple result of mathematical computations of size and geographical distribution of population, and the mechanical scanning of national maps. It should embody the will of responsible people to create these communities. There is no harm in each of these communities having its own distinct traits - all energy results from the contrast between opposites - as long as they accept the fact of belonging to a larger community and accept the responsibility not only towards their contemporaries, but also towards those who will come after.

My next point - on which I should be cautious, because it is a very recent development which has not yet been carefully considered - is that a great change is taking place at present in the attitude both of students and of society as regards students. All that precedes is mostly relevant for 1968. In 1971 the situation is already very different. At a recent symposium organized by the Council of Europe to establish contacts with leaders of student movements or unions it appeared that students now had the feeling that they had established their rights and did not need to fight any more in the street to defend them. This is true in so far as most of the changes taking place have given students a greater participation in university affairs. The problem for the students is, therefore, to make full use of these rights and organize themselves among themselves. This, in the long run, can change radically their attitude towards the establishment.

My final comment in this long introduction is this: we have for the past decades been thinking mainly in terms of quantity. Great things have been achieved by mastering figures and we should consider this as an essential element of our present civilization. But the cost of these achievements has often been to discard the qualitative elements of life. The scandal of our time may well be to have questioned durable values. Should a return to these values be one of the results of the Students' protest it will have done some good to society as a whole.

## B). Attempts at an explanation

Several hundred books have been written on the new situation created by youth unrest. It is, therefore, necessary to concentrate on major works written by high level authors who can be considered as representing "top thinking". For that purpose the following have been selected.

1. An Outline Analysis of a Youth Sick World by Marcel Hicter
2. La Revolution introuvable by Raymond Aron
3. La Revolte des Jeunes by Alfred Sauvy
4. La Societe bloquee by Michel Crozier

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### 1. The Council of Europe approach

The problem of student unrest and the more general one of youth unrest is of such importance for Europe that the Consultative Assembly of the Council of Europe devoted in 1969 one of its annual debates to this subject. The basic element for this debate was a voluminous report "Youth Problems in Europe" composed of 145 documents on youth (mainly statistics and analyses) which had been collected by M. Marcel Hicter, Director General for Youth and Leisure at the Belgian Ministry of Education for French culture. Parallel to this very learned and compact document which contained an enormous amount of facts, Marcel Hicter wrote a memorandum (1) for the use of the general public. This document throws a new light on the problem.

For Marcel Hicter the youth problem must be seen as a whole and include such phenomena as the "gangs", the "angry young men", the "beatnicks", the "provo", the "hippies" and others. If the effects of youth unrest are immensely varied the origins can be traced to a few elements of primary importance. It must constantly be kept in mind that we are witnessing a conflict of generations, perhaps the first of the violent conflicts between young and old which some sociologists forecast will replace the old class struggle.

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(1) Outline Analysis of a Youth Sick World by Marcel Hicter published in the Information Bulletin, 8/1968 of the Documentation Centre for Education in Europe. Most of the following text is extracted from this memorandum.

We live in an ageing society where the proportion of old people in parliaments, university chairs, the senior civil service grades, managements of firms, in industry, commerce and agriculture, and on boards of directors is constantly increasing. Such people no longer have the mental, spiritual or physical drive to keep up to date or to gear their lives and actions to a future which does not concern them. Nor are fifty-year-olds forward looking by nature. In 1940 they were 20: many played the daily game of life and death and were exhausted by it; many spent their youth in camps and conceived an urge to make up for all lost enjoyment; all of them are rather proud of having rebuilt their countries, their homes, their schools, their factories and having created a welfare society - which they missed most between the ages of 20 and 30 - daily progressing towards greater wellbeing and what they call greater social justice. Germans of 50 years of age are in addition particularly proud of having built up on the "night and fog" the first real democratic society their country has known, a society which has lasted a generation; they are particularly proud of having fully reintegrated their country into Western Europe within the space of 20 years.

And now their children are condemning the affluent society, their democracy, their social system and the universities which are there only to train them to be the managers of the society which is the pride of the 50-year old parents.

Marcel Hicter focuses the greater part of his analysis on society which he considers to be primarily responsible for the present situation. He stresses the following points:

a) The universalisation of culture

Culture and the future of young people are assuming a world wide dimension. No event, wherever it appears, remains without consequence for others. We know everything that happens in the world. The human species, for the first time in history, is becoming aware of its unity. We have really reached the scale of the jet engine, the H. Bomb and rockets. This makes, for instance, ever the more urgent the assistance to the third world since we are aware of and can see the poverty of the third world and the peoples of the third world are aware of and can see our affluence.

b) Mass communication and mass culture

Communications are being speeded up and the information is reaching the masses. Two further remarks must be made.

1) We are dealing with the first generation to have been subjected to television throughout their lives, and it must be said that, whereas for most of us school was the principal, not to say the only, window on to the world, members of this generation derive only a small part of their intellectual stock from school. They have been constantly

bombarded by pictures, sounds and atomised information; they switch in the space of a minute from the death of Kennedy to a motor race or a traditional folk procession. They are bombarded with bits of knowledge which have no connecting links, order or system and are geared to no values or lines of force. They have no sense of analysis or synthesis. Whereas 15 to 16 year-olds differed qualitatively from 19 to 20 year olds, 11 to 12 year-olds present differences in nature, in mental structures, reject all logical or rational approach to problems, and possess no framework into which they can fit their knowledge.

ii) Our society, based on linear writing, was bound to be a civilisation of the eye and the reason (the mere need to write compels us to arrange our ideas), whereas mass communications, particularly television, are taking us from the age of reason to a new oral age which is tribal on a planetary scale.

These two remarks explain the impossibility of engaging in a dialogue, as though between the mental structures of young people and an adult mental structure there was a difference not of quality but of nature, rendering a dialogue impossible through lack of a common method of thinking and reasoning.

### c) Industrial mind-conditioning

The industrial conditioning of consciences and minds is a product of the last hundred years and one which is undergoing rapid and mutiple developments:

We are not sufficiently aware that industrial mind-fashioning is not yet fully developed, that it has not yet been able to master its essential element, namely education. The industrialisation of teaching began only in our time; while we are still at the stage of discussing timetables, educational systems, the shortage of teachers, and making full use of premises, there are already in sight the technical means and media which make all debate on educational reform an anachronism.

The object of industrial mind fashioning is to perpetuate the existing patterns and to inculcate a certain way of thinking, so as to exploit it.

As a result of the rapid development of industrial mind-fashioning and the fact that it has become part and parcel of modern society, the social role of the intellectual is being transformed. He has to reckon with attempts at corruption and blackmail of a new and subtle kind: he becomes the accomplice of an industry whose future depends on him as he depends on its - established power, is incompatible with his own.

### d) A world of violence

Violence challenges civilization: in our age of man's increasing mastery over the forces of nature, of flowering scientific achievement, of brilliant research work and of respect for life learnt in childhood, violence is a disgraceful anachronism. Violence is rising like a tide on the horizon of the future. Developing technology is producing new forms of physical and moral brutality - the rape of conscience, brainwashing, manipulation of men's minds and other pressures of all kinds which build up a huge machinery of dispossession and prostitution of freedom.

These savage, brutal and conspicuous kinds of violence are not the only ones. More dangerous because less obvious are those cunning methods of indoctrination and conditioning which, with seeming gentleness and artfulness play upon men's inclinations, seek to shackle human beings with invisible bonds. If a man is inexperienced, disconcerted by the complexity of life, overwhelmed by pressing appeals addressed simultaneously to both his lower and his higher nature, to both his ideals and his instincts, he becomes a mere plaything who can be bullied all the more because he believes that he has gained in freedom. This insidious kind of violence is barely felt. Yet its damage is all the more profound because it captures people unawares and annexes their goodwill. Violence that is noiseless establishes itself with the connivance of its victims and can be detected only in the advantages which it brings to those who make use of it.

### e) Population explosion

OECD mentions that on 1st January, Turkey had 5,349,000 young people aged 15-24 out of a total population of 27,636,000; and forecasts for Turkey by 1st January 1976 a proportion of 7,955,000 out of a population of 41,101,000.

In 24 hours there will be 100,000 more people in the world; in one year, approximately 40,000,000 more; by the year 2000, the population of Latin America will have risen from 200,000,000 to 600,000,000 inhabitants; China will have 1,200,000,000; India at least 1,000,000,000. These demographic considerations become particularly significant because of the extension of human longevity owing to progress in the fields of medicine and hygiene. The number of living generations that must co-exist is greater, and we are concerned with maintaining spiritual peace and harmony in communities which comprise both those who fought at Verdun and do not forget this, and their grandsons and great-grandsons who did not even know Hitler.

### f) Relativity of the concept of "young"

The notion of youth is purely relative, according to whether we consider average age or experience of life in a country where an age of 70 or 80 is normal or where one dies at the age of 40. Another result is the suprisingly short span of generations: although structures and values change less rapidly than techniques teachers know that children of a single family, according to whether they are 20, 15, or 12 years of age, will not belong to the same generation: they are subjected to the influence of different standards of juvenile behaviour, and to different sub-cultures of age, which give rise not only to opposition to parents, but to separation between children in the same family: the same father must behave differently towards and accomodate himself to the different generations of his own children.

### g) Effects of the explosion of youth on the life and atmosphere of schools and universities

In the universities, populations in a single generation have risen from 50,000 to 600,000 university students in France, and from 10,000 to 60,000 in Belgium.

Universities that have 100,000 students cannot organize proper human relations between students and professors or among students, professors and administrators.

Not long ago, Sartre wrote: "There were 25 of us in the teacher training college class; we did not stifle, because we were few in number. We worked among ourselves with perfect instruments. We could discuss matters with our teachers, and there were continual disputes, but all this took place in an atmosphere of aristocratic leisure. Today it is entirely different. The students have become so numerous that they have no longer the direct relations with their professors. They merely hear him through a loud-speaker - an absolutely inhuman and inaccessible personage who delivers to them a course whose importance so far as they are concerned they wholly fail to grasp. (1)

At the root of the problem there is

i) the university population explosion
ii) a devaluation of university diplomas and
iii) the birth of a new proletariat armed with weapons far more destructive than those of the worker proletariat for the protection of its interests and its future.

It is not the destiny of the young university graduate of today, as it was the pre-ordained destiny of his father, to become one of the leaders of the community.

In the stable society of recent centuries, the normal conclusion was a chronological notion of the relative importance of roles: knowledge was matured through experience, and responsibilities normally increased with age. Now, we no longer pair "knowledge and experience", but "knowledge and creativity" in politics, science, medicine and technology. Youth give priority to invention, innovation, new solutions, to such a point that it might almost be said that experience of the past handicaps the contemporary adult.

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(1) It is interesting in this respect to quote the opinion of Lord Robbins (see below chapter II A 2 The Robbins Report and its consequences) "In my judgment the mere size of many universities today is such as to breed unrest and uneasiness in the student body. The individual on a campus of many thousands of undergraduates is apt to feel lost and bewildered - a sort of spiritual agoraphobia. He is an atom in a world of apparently unorganised atoms. There is no sense of community; and he and his fellow atoms are apt prey for any articulate neurotic who happens to come along and find his spiritual compensation in working on the emotions of others. It is no accident, I think, that many of the revolts of our time have taken place in universities which were either absolutely large in this sense, or were in a process of growth so rapid that the traditional forms of organisation were proving inadequate."

In this world where efficiency is more and more often to be found between the ages of 25 and 40, we must make a revolution in human relationships, and provide those who are over 50 with an opportunity of carrying out long-term tasks requiring continuity.

### h) Changes in the social function of youth

Modern life has brought about a prolongation of the period of adolescence: whilst medicine and hygiene prolong life, at the same time they make young people bigger, give them usually greater physical strength and, above all, a more precocious puberty. Young people attain their full adult biological functions earlier, but, on the other hand, their independence is increasingly retarded.

In earlier generations the transition from childhood to adulthood took place in a few months; it now takes more than ten years.

This lengthy process also leads to an ability to dream up the world and live in an unreal universe of ideas. A generation or two ago, a great majority of boys of 15 were decided on their careers: now, many "adolescents" of 25 have not made their choice. Twenty-six percent of boys and fifty percent of girls at the end of their secondary schooling do not know what profession they are going to take up. This delay in achieving social independence leads an increasing number of young couples, even with children, to living entirely on their parents. We are now witnessing a new and fundamental mutation in the human species; neotny is the transition of an individual of child structure to the function of a reproductive adult.

### i) Biological changes

We must admit that young people procreate and develop their physiological needs at a period of physical development that is far ahead of their affective, moral and intellectual development, which is prolonged and retarded. There is a risk of our societies' becoming very largely composed of individuals with men's bodies under children's heads; the young man of today is a neotenic product, made for another world which will be his tomorrow and which an adult cannot understand. The global situation of such a society is agravated by the fact that this young man needs the social shelter of family environment no longer merely up to the age of 5 or 6, but until he is 15 or even 20, the role of the parents is being intensified and assuming a new dimension.

Young people accept social responsibilities and functions only much later, and are conscious of having a share in the redistribution of social profits (their rights) without participating in production (their duties). The period of rights and marginal life is prolonged to the detriment of the period of duties and effective action.

### j) Structural and cultural disintegration

The student as a product in process of completion is not a part of society in the same way as he will become a part of it some day as a finished product. The number of years spent at university is increasing, a very large number of the more intelligent students are engaged in adding one degree or diploma to another and pursuing parallel lines of research before accepting adult responsibilities, there is indeed real cause for concern: in any large university there are dozens of the most brilliant minds aged between twenty-five and thirty, who, refuse to accept adult functions.

### k) Characteristics of contemporary society

European society has undergone a profound change.

a) Before the 1950s another manner of thinking prevailed. "Man" was defined according to productive or aesthetic activity. There was a kind of consensus of opinion; everybody agreed in attributing a moral value to work, to trades, to activities. Many hoped for self-achievement in their profession. Others attributed to manual work the origin of human dignity.

b) Today it must be agreed that these values have become singularly less clear-cut. We now find in the foreground a nexus of ideas and of thinking and feeling that are connected with consumption. We have set before us a picture of man the consumer, no longer man the producer.

### 1.) The Industrial Society

We do not know whether the world-wide process of industrialisation is going to produce the same type of society everywhere. Neither must we forget the problem of the third world of predominantly agricultural countries. Intensive organization of achieving 100% of the potentialities would lead to the hypothesis of a world city almost entirely situated in the northern hemisphere, bounded by a world-wide countryside.

### m) The Technological Society

### n) The urban phenomenon

It is through the city that technology enters into society. Urban phenomena would therefore, become the true technical problem. The growing importance of technology demands a social framework, the existence of one or more groups for whom technology has become a true ideology and who try to form themselves into a class; the technocrats.

### 0) Theorists of abundance

We may observe a new type of poverty. Once the more elementary requirements are satisfied, other types of scarcity are discovered. Especially in an urban environment, there is scarcity of space and also scarcity of time.

### p) Theorists of the society of leisure

A precise analysis of time leads to a distinction between working time, free time(leisure) and occupied time (travel, formalities of all kinds required by an increasingly bureaucratic society). This occupied time results from the expansion of towns, from a dissociation between places of work, residences and recreation. Although working time decreases, leisure time has not increased, but it is the occupied time that absorbs the amount of time thus made available.

q) The Consumer Society

Stress is laid almost exclusively on individual needs and no concern has been paid to social needs. For example, in new urban building schemes everything relating to social needs is singularly neglected. We are witnessing the creation of needs by those who control the means of production, and with the help of publicity of shaping these new needs and giving them both form and attraction. Those who hold the reins of production also govern the conditions of consumption.

r) The analysis by Herbert Marcuse

Marcuse declares that the industrial society is dominated by technology, which has become "a power in itself, all the more to be feared since it acts in and against man to make him a mutilated, one-dimensional being". Whereas the aim of social organisation is "the establishment of a human existence in a humanised nature", "we on the contrary live and die under the sign of rationalism and production". Bureaucracy, administration, planning, party machinery are all obscured by the exclusive priority that they give to production. "Pots are made to put soup in and soup is made to fill the pots". The major claims are now only quantitative, never qualitative, in this demand for welfare. Man has been led to prefer gaining more to being more, to give living standards the priority over kind of life. Man's value is now only instrumental. The administration of things has taken the place of the government of persons, and we achieve both the rational and absurd when "we sell anti-atomic shelters fitted with all modern conveniences". Marcuse declares that we must rediscover an art of living and rebel against the totalitarianism of technocratic reasons: we must rediscover flowers and love.

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The preceding analysis of society makes us understand better the reason for

The Student Uprising

The uneasiness of young people is a truly world wide phenomena - only the form that it takes varies with national circumstances. The fact is that students in one place are demanding reforms which may have been secured elsewhere long ago.

For an objective analysis cutting across national boundaries and showing that the sickness is a world-wide one, Marcel Hicter recommends the review published by the US Information Service under the title of "Dialogue", the first issue of which is devoted to "Ferment in the University". This issue contains an important article on the subject by Clark Kerr, former President of the University of California. The following excerpt is relevant also to all European countries;

"As citizens, many of the challengers point to a hypocritical society which permits the use of napalm but not of marijuana and whose governments seem incapable of either understanding or solving problems ranging from ghettos to Vietnam.

As students, they are critical of a bureaucratic educational system under which teachers are remote from the students and take no interest in them and under which the administrators never listen attentively to their ideas on reform (lodging, academic problems, personal problems, student activities) or take notice of any of the problems that closely affect them. At their classes, they are not expected to take part but only to listen. As future workers, they see vast industrial corporations and trade unions cynically manipulating and depersonalizing the population rather than liberating it and providing it with interesting work calling for a spirit of initiative. In the opinion of many critics, such a society cannot meet the hopes or fit the talents of individuals. Many demand a system of direct democracy (participatory democracy) under which the citizens will take part as directly as possible in decisions affecting them whether in their education or work or in the policy of their governments".

## Conclusion

The key-words are autonomy, self-administration, challenge.

a) The demand for autonomy is a claim urged mainly against the centralising and bureaucratic state. It is a claim for a new concept of human dignity. Autonomy would facilitate the establishment of open structures, permit of greater flexibility to meet regional or local needs, to introduce new subjects, to integrate teaching in faculties where the division of subjects no longer meets the requirements of research which has become increasingly interdisciplinary, etc. Autonomy may also lead to a certain dispersal of efforts: Politicians must be careful to weigh up the advantages of allowing Liege, Rome or Munich to settle their problems in relation to university requirements of Liege, Rome or Munich, against the disadvantages and risks of stopping short at fragmentary, diversified and sometimes contrary solutions at a time when it is in the interests of university authorities to achieve international recognition of their standards and degrees.

b) The concept of self-administration is not new. Many American universities have a dean of students. The worker at any level is faced with permanent retraining and self-improvement.

c) Dispute is concerned with the university itself. Young people are abolishing the customary professorial lectures, which must give way to dialogues and groups; they reject the examination system, by which some unknown person, either promotes thousands of young people or casts them into outer darkness. They refuse the wide scale of the subjects taught, and realize that many of the "truths" instilled into them are no longer truths; they know that knowledge is perishable, and that degrees also in time will become valueless; they demand a critical university, where parallel lectures will be given and the content of courses will be analyzed; they dispute knowledge itself which is no longer acquired data but a conquest which goes forward, which changes, which develops actually by being contested.

They know that their life is no longer divided into two parts, one when they arm themselves with knowledge and technology, and the other where they apply this knowledge and technology. They know that they are entering into a society where the most learned is likely to be overtaken any day in his special subject, where they may be outmoded and superseded at the age of thirty, and that there is nothing more dangerous than to be a super-specialist and nothing more. They know that the university is more important than ever, to a degree unimagined by adults in so far as during their whole adult life they will no longer be able to leave it. They are sentenced to a civilization of study, of permanent retraining, of permanent revision, of faultless adjustment.

If it were only ten years behindhand, the university would fail. The university, as a result of its ponderous nature, its compulsions, its methods, the idea that it still wrongly cherishes that it must in four, five, or seven years charge up a battery to last a whole career, is not up-to-date.

The reform of the university is a matter of concern to the whole of society, inasmuch as those who are there today and will be the leaders of tomorrow are sentenced never to leave it again; or at any rate to come back continually until they retire. Not only by granting young people easier access will the university double its population; it is going to quadruple it by the indispensable return of all its graduates. It will also have to quadruple its campuses, laboratories, libraries, clinics, hotels and the number of its scientific staff. And also its budget. People must be made to realize that as the society towards which we are swiftly heading demands, the only investments are in men; the others will follow.

Young people are no longer willing to be reduced to the role of producers, consumers, or mere performers of orders; they demand "not only the means to live, but reasons for living". They are in revolt against a society where men are possessed and do not possess themselves.

In future, the exercise of authority will demand dialogue and participation.

## 2) The Unthought-of Revolution (1)

In the form of a dialogue, Professor Aron (2) has summarized his views on the situation in France in 1968. His main purpose is to demystify the so called revolution and explain the situation in rational terms. The "May-Events" would, in his opinion be a more exact denomination than "Revolution". Professor Aron bases his analysis not only on current facts which were noticeable immediately before and during the events but also on the general trends of French History.

In the forward of his book Professor Aron quotes the left wing sociologist Proudhon, who wrote in his notes, in February 1848, after the fall of the bourgeois regime of King Louis-Philippe, "This has been a Revolution without a purpose. The French Nation is a nation of Comedians".

### a) The "May Events" : a psychodrama.

The key to the situation is that the "May Events" were a psychodrama: the caricature of a revolutionary comedy, some sort of Comedy the French played to themselves. There was no will to make a revolution, no purpose, no aims. The fever rose and fell as quickly as it had arisen. All happened suddenly as if the aggressiveness of the animal in man needed to be expressed by a cult of violence.

It must indeed be difficult for a foreigner, (and even for a Frenchman who was not in the capital during those crucial days), to understand how a very local revolt (limited at the beginning to 100-150 active extremists supported by few hundred sympathizers) in Paris university gradually developed into a national crisis which almost upset the regime without there being any evidence that any of the revolutionary parties or any of the mass leaders really intended to take the power.

For public opinion the first event which had some revolutionary significance was the occupation of the Sorbonne by the students on Monday, May 13, the day after the return to Paris of the Prime Minister, Mr. Pompidou. The crisis then came to a peak with barricades in the streets of Paris and the general strike of the workers which paralyzed French economy. The complexity of cooperation which is necessary for the working of modern society makes it easy for an active minority to paralyze a whole country. Can these latter events which impressed so much those who witnessed them and were given world audience by broadcasting and television be properly termed to be revolutionary? It is indeed hard to believe that it required a revolution, or even a general strike, to get a 10% increase in wages! As for the barricades, they can only be termed nowadays to be a military parody. Their importance is essentially psychological.

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(1) The elements of this chapter are taken from Raymond Aron, La Revolution introuvable reflexions sur la revolution de Mai (collection "En toute liberte: Fayard, 1968 - 187 pages)

(2) Raymond Aron - Born 1905, Professor of Sociology at the Faculty of Arts of the University of Paris. Member of the "Academie des Sciences Morales et Politiques".

It is evident that throughout the "May Events" Prime Minister Pompidou remained convinced that it was not the intention of the communist party to cause the government to fall (though in all respect it gave that impression) and would limit itself to negotiate a rise of salary. But all happened as if the agreement thus reached with the communist party was questioned by the left wing extremists (1). At this point the psychodrama might well have turned into a real revolution. The communist party succeeded in preventing this far better than the government protected itself against it. It was thus a mere coincidence that on a particular policy the interests of the government and those of the communist party coincided. To counteract a revolution France has unfortunately no strongly organized syndical power in the way we see it operate in Germany, in Great-Britain or in the United-States.

The "May Events" followed a pattern similar to 1792, 1848, and 1871. In this respect they can even be termed "old-fashioned" and Professor Aron quotes frequently from Tocqueville (with whose liberal ideas he feels congenial ), expressions which seem to apply equally well to 1848 and 1968. The general process operated in each case in the same way. Public opinion rather sympathized at first with the students in May, 1968, thus forcing the government into the alternative of either using its force (which made it unpopular) or giving way (which was morally disatrous).

A clear distinction must be made here between the students revolt and the workers strike, however much both seemed intimately linked in the mind of the public and however much the students would have liked to see their movement extended not only to the workers but to the nation as a whole. There is a difference in nature and not only in degree to be made. While the worker's strike was in all appearances a psycho-drama, the student revolt was a real revolution. It was the unfortunate combination of both which almost upset the government.

It is, therefore, necessary to differentiate the protests against University and those against Society as a whole. A real revolution in the University almost caused a real revolution in Society.

b) The revolt against the University. A real revolution .

Whenever the refusal to obey takes a provocative character, university affairs become national politics. In this respect the French example differs from that of other countries and especially from that of Berkeley and of Columbia not by its scenario but by its place in national affairs (1). The understanding of the motives of this action is difficult. The following points can be made to clarify the situation:

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(1) Professor Aron believes that the revolutionary groups in France such as Socialists (P.S.U.), Trotskysts, Maoists and others could eventually destroy the existing order but not build up a new one. They could, therefore, force the country to make a choice between ultimate restauration of this order by the Communist Party or by the Gaullists.

i) It is not always realized abroad that France had no Universities but a University. All faculties depended on the Ministry of Education for all essential decisions; the Ministry alone could, for example, create a chair.

ii) The revolt was directed against the university system and its traditional order and discipline imposed on students. There was a general will to "desacralize" whatever seemed loaded with social prestige. The students were moved to violate taboos and throw down idols.

iii) A consequence of this was the establishment of direct democracy inherited from the anarchist tradition which is clearly uncompatible with the organization of modern Society.

iv) There was also a revolt of the university as such against the State in which both the teaching staff and the students united.

v) The chore of the revolt was a demand for democratisation of the university which can mean one or several of the following:
 - Greater participation of students in university affairs (new sharing of responsibility between students and professors). This is a well known claim and it is likely students will be deceived by the exercise of the power thus acquired. They will soon discover the frustration and the waste of time by participation in assemblies. But it is also a hard school of political education and a way to learn efficiency.
 - increase in number of students from the working class or the farmers.
 - change in the kind of culture given by the university. (Should, for instance, a popular or marxist culture take the place of the bourgeois culture?)

vi) Six main problems must then be considered.
 - The most important is perhaps the underlying opposition between the traditionally liberal university and the new revolutionary university. The question is whether the latter should really be termed "a university" or if it had not better be considered as part of revolutionary action.

Professor Aron dwells at some length on this key problem. If the purpose of the revolution is to introduce politics into university and then use this as a machine to destroy society, all becomes clear. The destruction of university is only a step for the destruction of the social order.

In the liberal university everyone is free to explain and discuss any doctrine. The situation is entirely different when professors impose

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(1) Professor Aron makes a clear distinction between student revolt in Western and in Eastern countries. While in the latter students are claiming for liberties that they have not got, students in Western countries have the feeling that the liberty they enjoy does not help them to change Society.

one doctrine and reject the others. Political influence on teaching is the end of the traditional university.
- limitation of the number of students to the existing resources in staff, building, etc..
- the danger of too great a university in Paris.
- progress in the relationship between students and professors.
- better preparation of the students for their future careers.

A diploma is never a guarantee for a job. The choice is, therefore, between a university for the minority (a luxury for the happy few who do not need to worry about a career) or a university for the greater numbers (which implies that the teaching should be closely related to external life). It is a fact that until 1968 (and perhaps also since then) universities are receiving more and more students while at the same time refusing to consider the careers that students could make after. Here again the real problem, is the purpose of the university. One of the arguments of the revolutionaries was that to adapt the teaching to the needs of the capitalist regime was in fact accepting a technocratic university. But then one cannot at the same time refuse selection at the entrance of universities, refuse the adaptation of the training of the professional needs and then protest against the absence of careers. If students are to enter freely into universities they must accept that the university teaching is an aim in itself, and does not necessarily lead to a career.

-The question of university competition and degrees. The students claim that this "meritocracy" is an indirect way of introducing social discrimination into democratic societies.

It is true that in this respect certain classes are better equipped than others to win these distinctions. In France, the importance of degrees is extreme, since the possession of a degree, governs, in fact, the career. The ideology of "meritocracy" is the means by which modern societies have reconciled existing inequality with legal equality.

vii) Several other not so obvious motives can also be brought to notice:
- The contradiction between the consciousness the students have of themselves, (now that they are mature physically at the age of 14 or 15) and their dependence on the society they remain in (learning until 23 for a job and living in the meantime outside the responsibilities of adult life.).
- It is also possible that some professors inwardly doubted the value of their teaching, of their very existence and of the existence of the university. This means that a collective abandon, even if imposed by a minority, presupposes a collective bad conscience.

All these motives are self-explanatory. All are true, all preexisted to the "May-Events" and still exist today. They altogether motivated the "revolution" and a revolutionary spirit will be underlying until they are satisfied. But one thing is essential for Professor Aron: there can be no reform of the university which does not aim primarily at restoring its moral value.

### c) The revolt against Society: a psychodrama

What were (or are) the main reasons for the complaints students have against society? Though we should not attach too much importance to what was said (or written) in the excitement of a period of crisis, it is important, however, to record the main themes, some of which were quite clearly expressed on the walls of the university. These were the following:

i) Demand for a change in the leadership of the country "France is getting bored" or "Ten years is enough".

ii) Revolt against authority. This refusal of any form of discipline reveals a profound dissatisfaction. Society is questioned. Should a good "reason" ever occur, the existing structure might blow up.

iii) Refusal of bureaucracy.

iv) Recognition that economic progress has not put an end to poverty (nor suppressed considerable inequality in revenue).

v) Open opposition against the establishment, (as much in fact against the men of 35 as against those of 60.) There is, indeed, in France a strange combination of a powerful hierarchic system and a permanent call for equality.
It is worth nothing in this respect that the most revolutionary elements in Society are not those situated at the bottom of hierarchy but those who are midway and high enough to see the distance they should still cover to reach the summit.

vi) Criticism of the consumers society. This is one of the weakest points. Do the young really refuse technical progress? Herbert Marcuse himself professes his distaste for both capitalist and socialist societies. He repeats that he wishes for a society where abundance would exist without obsession of success and constant worry for more production. Indeed, refusal of consumers society (which implies detachment from futile attachment to objects) is not an objective in itself. It expresses rather an emotional and moral revolt which cannot be expressed in terms of a political programme. Underlying this criticism of the consumer society the students were expressing some sort of metaphysical protest against a civilization which has no transcendental creed and which seems to be carried away in some fantastic adventure towards more knowledge and more power but with no ultimate aim. As far as we can trace the history of man we see that all civilizations have been cemented by some kind of common Faith. Our western civilization has lost this religious consensus.

vii) Man has come to feel that he is a stranger in the world he lives in. He is the slave of the organization to which he belongs. He cannot find his full accomplishment in his work. It seems supremely unjust that those who are the least paid are also those who have to do the most unpleasant work, and the one which requires the least qualifications. In most modern societies the General Director gets the highest salary and enjoys the most interesting life at the same time. In the same way how could students feel at ease in "university factories" where they are lonely, lost among a crowd? Their situation is not unlike that of the workers in factories in the early 19th century. Workers were moved to break the machines; symbolically students break their tools, their tables and their chairs.

If the complaints against the existing society were more or less clear, the means of changing the situation were (as could be expected) confuse. A certain number of reasons can be accounted for this:

i) The "May-Events" were at the same time anachronistic in so far as the workers claimed for the factories to be nationalized and, far reaching, when the workers claimed for participation in the administration of the factories, decentralization of the power of decision, better information and more feeling of responsibility.

ii) Bureaucratic hierarchy emerged once more from the ruins of the revolution as it had done in previous "revolutions" in the 19th century.

iii) Compared to the ambitious aim of reform of society the reforms proposed were of a petty nature (such as a rise in salaries) and hardly touched fundamental reforms. "L'imagination au pouvoir" has not proved to be very imaginative!

iv) The attempt to introduce direct democracy by unending discussions in General Assemblies proved to be a failure. Such attempts are the counterpart of real society as seen in the dreamworld of social crises.

v) Students fall into the temptation of drafting constitutions to stabilize their newly acquired powers.

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Professor Aron draws a very cautious conclusion. In political and social matters, the French people always prefer abstract ideas to facts. They act on emotional motives. They will accept changes of regime brought about by the pressure of popular upheaval and are only too ready to forget their old masters and accept temporarily the new ones. In this light the "May-Events", even though they cannot be termed as a "revolution" should nevertheless be taken seriously. If they have not succeeded in building a new world they have at least made a serious breach in the old one, a breach open to irrational and unforeseen forces.

On of the lessons to be taken from the "May-Events" is that modern society is more fragile than one believed it to be. The university, in particular, is a very fragile institution.

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## 3) The Youth Revolt - (1)

The author(2) calls attention to a number of facts, mostly statistical, which are not generally known, since these facts often go against some of the most widely accepted creeds.

The first fact is that France, more than other countries (such as England or Germany) had until quite recently an ageing population. This had consequences in the behaviour of the French people. The pioneer spirit was gradually dying out and the birth rate was falling. For reason of convenience couples prefered not to burden themselves with children.

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(1) The elements of this chapter are taken from Alfred Sauvy, La Revolte des Jeunes (Calmann Levy (1970) 269 pages).

(2) Alfred Sauvy - Entered the Ecole Polytechnique in 1920. Sociologist, pioneer in the field of economic prevision and study of populations. Professor at the College de France. Represents France since 1946 at the Committee on population of the United Nations.

Suddenly, in the midst of the 1940-45 war, and mainly due to a change in policy as regards state support to large families, the birth rate went up as can be seen from the following figures:

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|---|---|
| 1941 | 519.000.- |
| 1942 | 573.000.- |
| 1943 | 613.000.- |
| 1944 | 626.000.- |
| 1946 | 836.000 (after the return of the war prisoners) |

But Government action went no further than encouraging large families. Nothing was done for the future of the new generations. For a million more children of school age from 1951 to 1955 it would have been necessary to build 40.000 new school rooms. From neglect of this dates the present situation.

The consequences became soon apparent. School rooms were overcrowded (more than 50 in each) without any serious reform been under-taken. The whole structure of the establishment has been up until now built for the benefit and the protection of people of a certain age. The younger generations are practically excluded from it. It was, therefore, fatal that youth should respond by barricades to the fortifications built by adults.

There are now two generations above youth: the parents and the grand parents. The distance between them in length of time is greater than ever since we live much longer and witness more changes over a given period. Between two successive generations the distance today is equivalent (and perhaps more) than three quarters of a century in older days.

At a time when increase in speed is a leitmotiv it is normal to find the younger generatións trying to overtake the older ones. They indeed can go much faster since they are not impeded by the necessity to solve day to day problems of productive life.

We must also take into account the biological fact that boys and girls become mature much earlier (the increase has taken place at the rythmn of 10 months per generation for the last two generations). The length of time between manhood and the taking up of responsibilities is therefore lengthening.

Another important factor is the increase in number of students. In 1939 there were 76.700. In 1970: 686.000. The rythmn of progression in number which had been 16,5% a year from 1928 to 1938 has raised to 224% from 1958 to 1968. A new era is opening which the older generation, mainly preoccupied with their security, have not understood. The younger generation is pressing at closed doors.

One of the main fears of the older generation is loss of employment. People often believe that unemployment will become greater as the development of technology and the greater use of machines will reduce the manpower demand. There is, therefore, a tendency, as a reaction of protection to try and limit the number of young people acceding to the market of employment.

The truth(though perhaps difficult to explain and to understand) is the reverse. Since machines replace men the number of jobs available tends to become greater (and not smaller). The working population in the U.S.A. has increased from 58.914.000 to 77.325.000 (that is 19.000.000 more) from 1950 to 1969 at a time when automation is making spectacular progress. There is no limit in fact to the possible increase of jobs, (not,of course, in any specific field, but taken in toto)

What do the younger generations think of this situation? Often they do not want to think at all. Thinking is considered as part of the establishment which they reject. Theirideal is a new Society which would be entirely built on new principles.

The younger generations want to demystify life, but succeed only in adopting a mythology of their own, part of whichis merely taken without even questionning, from the mythology of the adults.

One of these "myths" is the myth of abundance being a direct consequence of science and progress in technology. It is even thought that the Society of abundance could provide every one freely with all goods. This is, of cource, untrue since abundance is only the satisfaction of needs and if those needs increase faster than production there results a feeling of frustration.

A word should be said in this respect about the consumers society. In western countries we have been witnessing, during the last quarter of a century, changes for the best, greater than at any other period of humanity. There have been no more economic crisis, the standard of living of the workers has doubled in twenty years, full employment is almost general. More lodgings have been built in fifteen years than during half a century. Health is better cared for. Access to education, which was a privilege for 10% of the population has been extended to 70% pending complete generalization. Life has been lengthened by ten years and cars, which were a luxury, are now of common use. What would a man in 1880 or even in 1935 have thought of all these achievements?

We should replace the word "consumer" by the word "needs" to understand the mechanism of present Society. The main problem is: what are the needs and how to satisfy them. There is, at present, no relationship between the number of people willing to do things (provided their action is in accordance with their possibilities and their desires) and the number of people actually needed to satisfy the demand. No effort is made to coordinate the consumer population and the producing population.

Education should prepare and orient people towards the needs of the economy. Not only does the present system of education not do this but, contrary to industry which is capable of bettering the quality of the product while increasing the output, the education system is one of the fields where mass production finally deteriorates quality.

By lack of orientation one student out of five turns towards a scientific education while the economic needs would require three. In fact, Society is helping students to choose a career which can lead them nowhere.

## Conclusion

1. The responsibility of the present situation rests upon the older generations who have sacrificed the needs of the younger generation to ascertain their own security.
2. The younger generation are the new proletarian class. They have not been tempted by the materialistic Society.
3. There have, in the past, existed Societies which were more unjust, more cruel than ours. But they were stronger because they knew themselves better and could better protect themselves from auto destruction. Democracy for instance, held strong for a century because there existed a leading class with a firm hand to direct it.
4. Society is being destroyed from the inside by the fear men have of losing money, prestige or power.
5. Youth alone can bring hope for the future. Youth must look ahead to reform Society without destroying the present machinery. A new Society cannot be built on ruins.

## 4) A Clogged Society (1)

Michel Crozier (2) gives a tentative explanation of the difficulties encountered by the French system to adapt itself to modern conditions of life. In his view the root of the problem is to be found not in the institutions but in the French approach to life of which the institutions are only an expression. The innate passion to command, to control and to over simplify are the characteristics of the leading class in government, business or industry. However brilliant and competent these men may be they have failed to pay due attention to the current economic and social development.

If participation of all in a democratic way is to be possible and efficient it is necessary for the structures to shift from a rigid bureaucratic system to something more fluid based on mobility, competition and negotiation.

The French university system is usually considered as a product of the

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(1) The elements of this chapter are taken from Michel Crozier La Societe Bloquee, Edetions des Sevil, Paris 1970 (252 pages).

(2) Director of the Center for Sociology of organizations (sponsored by the National Council for Scientific Research). Professor at Nanterre and at Harvard University.

Napoleonic system based on a highly centralized administration. This is only partially true since Napoleon reinforced and materialized a tendency which was already firmly rooted and almost part of the French mind. To change this system would mean to alter the deepest aspects of the French university system... An analysis of this system is, therefore, essential.

a) The French university system

The essential characteristic of the French system is that it has developed around its institutional structure a certain intellectual style, a way of thinking, a special kind of teaching, a particular concept of human relations, each of these aspects being very logical in itself and perfectly independent from the other.

The component aspects of the system itself are the following:

i) Monopoly (which refuses competion: one university only per geographical area)
ii) Centralization ( a consequence of monopoly)

iii) A certain intellectual style based on:

| | |
|---|---|
| cartesian clarity<br>stability<br>formalism in the presentation of ideas<br>abstract and deductive mode of reasoning | all generally reputed to be "Typically French" |

This "intellectual style" is perhaps the strongest element which keeps the system going. Centralization, for instance, cannot be conceived outside a standardized and uniform world. Formalism is necessary to ensure bureaucratic order. Abstract reasoning is a means of protection against outside pressure.

This type of teaching leads necessarily to a widening of the gap between teachers and students, the former being the sole depository of truth which is conveyed by means of magisterial lectures.

The relationship of University and Society is based on the principle of a selection of men by means of examinations and competition (which play the part of the right of birth). This system has in fact succeeded in maintaining the traditional social hierarchy whilst ensuring equality of all versus education and giving everyone, (at least nominally) means of acceding to the professions which are socially the most highly ranked.

This system of selection thus creates a body of men who hold the power and ultimately reinforce the system as a whole with the consequence that university becomes isolated from society while at the same time imposing its rules on it. This system is naturally change resisting. It is unable to adapt itself to new demands or even to notice them.

b) The mechanism of the crisis

The effect of such a system, in which all elements are so closely interrelated, is that nothing can be changed unless everything is changed at the same time. The system is so totally integrated that it calls for a total contest.

Change in the university system can only be made as a consequence of a crisis. Even then will it only be possible to introduce such new elements which can be easily absorbed and integrated into the system once the crisis is over. The difference with the previous situation is that the system will then be better adapted to the new needs. Intrinsically it will not have changed.

The question then remains whether the crisis of 1968 has followed this general pattern or whether it has not gone one step further and can be considered as the starting point for a more radical reform. Such a change is in fact unescapable in the long run in view of the increasing gap between University and Society and the difficulty to remedy the situation without questionning the very basis of the university system.

Four main problems may then be raised.

i) The problem of human relations

It was in this field that the revolt was the most spectacular. For a time the university became the center of some kind of direct democracy. Everyone was invited to speak out and voice passionately his opinion (though in total incoherence.) The result was indeed a diminition of the formal aspect of university and greater participation of all. However, the feverish atmosphere in which this took place could not but make the change be superficial.

ii) The problem of general culture

There appears to be a need for a way of thinking which would enable us to adopt a more active attitude towards the outside world. The old humanist culture seems inadequate to solve the needs of the modern world, in so far that it affects not only classical humanities but also physics, mathematics or history.

iii) The problem of the place and role in society of the new lower middle class

The real problem of the university is the arrival of a new social class to which the society of abundance has given the means to accede to higher education. This new element was ignored until lately by the old elite of technocrats because it affected directly neither the "Grandes Ecoles" nor the competitive examinations and the privileges attached to both.

It thus appears clearly that the establishment in France could do without the university since the recruitment and preparation of its members are provided outside the university. If we then consider that research is seldom done under the aegis of university it is easy to conclude that the university functions in practice only for the benefit of those who have failed to do better elsewhere. One of the main causes of the crisis in May, 1968 may be that the new social classes became suddenly aware of the uselessness of a purely academic education.

The results of the crisis are likely to be contrary to the expectations. No changes have been introduced in the present system of "Grandes Ecoles" and competitive examinations which still remain the only means to accede to posts of command. The effect of the present university reform will, therefore, only be to help more people to accede to the lower grade posts. The gap between the extremes in the hierarchy will, therefore, be widened even more than it is.

### iv) The problem of the selection of the elite and the maintenance of traditional casts

The present system of selection of the elite through competition and the "Grandes Ecoles" has both advantages and disadvantages.
- The combination of severe selection and intense preparation:
    - Enables younger men to accede to the highest functions,
    - Establishes personal relations between men holding responsibilities in institutions or in widely differing sectors
- The members of this privileged class are induced to retain and transmit this monopoly as much as they can. Barriers are thus created against outsiders and efficiency is diminished with the consequence that the elite tends to become isolated.

The fact is that the system needs this kind of elite if it is to remain a strong hierarchical bureaucracy and the elite could not survive as such without the present system.

The answer to the problem would be to enlarge the elite by opening it to competition and cooperation with other classes. Real innovation today is not the privilege of a few but the result of cooperation on the largest basis combined with personal initiative.

### c) A liberal revolution or a revolution for the lower middle class?

The combination of the two following forces has paralyzed the university since 1968 and made major reforms ineffective.
i) The pressure of those who claim for a drastic (and irrealistic) change: and
ii) The temptation of the establishment to:
-pay the price for getting social peace
-isolate the extremists

Without introducing major structural reforms this is achieved by merely satisfying part of the claims of the lower middle class (introducing them into bureaucracy has, of course, many political advantages). Such a short term policy might solve the more immediate problems though these problems, nevertheless, remain open for the future.

### d) The significance of the May crisis

The "May events" in France in 1968 were seen in a sort of dreamlight which made the witnesses loose their sense of reality. Though the elements of a crisis in the traditional sense were present never did violence go as far as murder nor was the authority of the State overthrown. The "events" remained a show, some kind of "happening". But what was their meaning? Never has anything more affected collective consciousness in the recent times. The outside manifestations of the "events" might have been a psychodrama but the problems were deep rooted.

### i) What kind of Revolution?

The crisis was truly revolutionary in its spirit and in its techniques. Its most typical expression was the sight of excited young men on the barricades. A revolutionary spirit of some sort of religious kind was suddenly awaken.

But there lacked the basic elements for a revolutionary spirit to lead to a real revolution. Society was not prepared to disintegrate. In terms of revolution the large majority of workers in France are not proletarians. They belong to the lower middle class and are strongly attached to their trade unions. Even the Communist party is a very cautious and orthodoxe bureaucracy which reflects well the mind of the workers. When the students attempted to pass the revolutionary flag on to the workers, the latters refused to take it.

It became then obvious for the government that no one would accept the responsibility of making a real revolution.

It might also be said that the real opposition was between those who had access to knowledge and those who were denied this privilege. The latter form an intellectual proletariat and their struggle to get education could be compared with the fight in the XIXth century between capitalist and proletarians.

### ii) The crisis as an expression of a clogged society

The "May events" can be termed revolutionary neither in their political nor in their social goals. They were revolutionary only as regards their attitude to human relations. The rupture was neither political nor social but cultural.

The revolt was not directed against the political or economical power. There was no real attempt to put an end to the capitalist society or to set up a society without social classes. What was aimed at was changing the whole system of human relationship which was mainly characterized by:

fear of direct contact face to face,
hierarchical conception of authority.

The "May events" provided an occasion to counteract these basic elements.

Human relations, whether in the university, the state, the industry of even the Church were questioned. All endeavours were made to suppress barriers and establish communications. Everyone was encouraged to voice his opinion and everyone was forced to listen. All form of authority was automatically contested and desacralized. The phenomena was general and took place everywhere at the same time.

But things could go no further since no one really wanted to change the system. People wanted to change the human relationship without changing the system.

This is the heart of the matter. The whole system is based on the opposition between:
groups (which are by nature conservative and negative minded)
individuals who are the constituting members of these groups and are protected by them. These individuals can, therefore, afford the luxury to be

- -revolutionary minded,
- -perfectly irresponsible.

Being revolutionary as an individual and conservative as a member of a group these citizens can but win on both sides.

Such crisis are essential for the system since they act as an outlet which enables small adjustments (though in no way of the size dreamed of by the revolutionary). A new equilibrum is then found pending the next crisis. Such was the real meaning and usefulness of the ministerial crisis. They counteracted the forces of inertia.

### e) The "May events" as a catharsis

We may ask ourselves whether the crisis was a return to tradition or a rupture with tradition? Did it finally make society change?

It may well be that the crisis occurred not because society was not changing but because society was changing too much. It was a crisis within the system and not a crisis of the system.

Changes in the system are due to interventions of technocrats who govern from the top without cooperation of the society as a whole. The crisis occurred because these technocrats wanted to change too quickly and too brutally the objectives and the way of life of the French people, while retaining an anachronic system of government.

What is likely to happen now? The "May events" might differ from previous revolutions. The fact that only a psychodrama took place instead of a real revolution seems to indicate that the old system is somewhat devalued. The people really wanted only a show, some sort of experiment, a rehearsal of what might have happened if they had insisted to get it. The generation which caused the "May events" may well have broken the traditional attachment to revolutionary illusions.

It is, therefore, quite possible that this theatrical attitude could have a feed back (catharsis) effect which would induce the community to actually want what it only dreamed of. Should this be so the "May events" would have been the last big show of a romantic minded country before it entered into a world of full responsibility.

# II. HIGHER EDUCATION IN EUROPE

## (Trends and tendencies)

## A. The response of the European universities to the challenge

Schemes to adapt universities to a changing society were already well under way when the "May events" occurred. These events acted as a spur to hasten reforms.

The four following countries, or group of countries, have been selected as case studies:

1. France: The orientation law
2. United Kingdom: The Robbins Report and its consequences
3. Federal Republic of Germany: The "Integrierte Gesom Hochschule"
4. Scandinavian countries
    - a) Sweden
    - b) Norway
    - c) Denmark

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### 1. France: The Orientation Law

The peculiarity of the French law is to have been the immediate result of the "May events". At the peak of the crisis Mr. Edgar Faure, newly appointed Minister of Education in the government which President de Gaulle set up after the crisis (with Mr. Couve de Murville as Prime Minister) accepted the task of drafting during the summer of 1968 a law for higher education and research with an entirely new outlook, to be adopted by parliament and put into operation almost before the end of the year.

To get an idea of how drastic such an achievement was, we need only to compare the new law with the situation as had been in existence for over a century and a half. The French universities date back to the Middle Ages and were essentially independent bodies with long standing traditions and links with similar institutions in other countries in Europe. The Revolution put an end to the system in 1793. Napoleon re-established in 1808 a university highly centralised and state-controlled which took the shape of a federation of disciplines known as faculties. This federation was extremely vague and had in fact no power. The cohesive bodies were the faculties themselves, and in most cases, groups of teachers within a single discipline (Institute of Mathematics, Institute of Physics, etc...). This union of specialists within a single discipline constituted an effective framework for making progress within that discipline (research) and for treating it as an end (training of secondary school teachers). It was completely unsuited to the teaching of this discipline as a means of acquiring an all-round education.

The training of executives in present day society, is essentially an all-round training.

(a) Analysis of the law

The final text of the "loi d'orientation de l'Enseignement Superieur" was adopted by parliament on 7 November 1968 and published in the "Journal Officiel de la Republique Francaise", on 11, 12 and 13 November 1968. The law is divided into 46 articles grouped into IX main parts.

In its first article, it sets out and defines the fundamental aims of the university as being "to elaborate and transmit knowledge, develop research and train men".(1)

The component parts of the law are the following:

(i) University institutions (Chapter II)

The law establishes two kinds of university institutions:

- Universities which group teaching and research units as well as

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(1) "Universities must seek to raise their highest level and to develop as rapidly as possible the higher forms of culture and research, making them accessible to all who have the vocation and ability.

They must meet the needs of the nation by supplying executives in all domains and participating in the social and economic developments of each region. In so doing they must conform with the democratic evolution demanded by the industrial and technical revolution.

They must provide teachers and research workers with the means for carrying out their teaching and research activities under those independent and tranquil conditions that are indispensable for reflection and intellectual creation.

They must give students facilities for guidance in making the best choice of their professional activities and to this end supply them not only with the necessary knowledge but also with the basic training.

They must encourage students in cultural, sporting and social activities which are an essential condition for a complete and well-balanced training.

Universities must contribute, particularly by taking advantage of the new media for communication knowledge, to permanent education, whatever its aims, for all categories of the population.

In general, higher education - all post-secondary studies - contributes to the cultural advancement of society and thereby to its evolution towards giving each man a greater responsibility for his own destiny."

-Public institutions of a scientific or cultural nature (2)
It is always possible for an establishment of the second category to apply for affiliation to a nearby university and receive the status of a teaching and research unit.

For the purpose of grouping universities at national level France has been divided into regional academies in which an Academy Rector represents the Minister of Education (by whom he is appointed) and is responsible within that area for co-ordination of higher education and other forms of education. He is ex-officio chancellor of the universities situated within his province.

Each region has a Council for Higher Education and Research which comprises elected representatives of:

- universities;
- independent institutions of higher education and research;
- and (for a third) outside personalities representative of local or regional authorities.

Election of members of the teaching staff and of students belonging to universities or to public institutions of a scientific or cultural nature are made separately and by secret vote. Half the members of the teaching staff elected should be chairholders or lecturers (maitre de conference).

The Regional Council for Higher Education and Research gives advice to the Minister of Education on long term planning, co-ordination and programming. The Council also advises on programmes and budgetary demands of universities. The Rector of the academy is Chairman of the Regional Council.

Under the chairmanship of the Minister of Education the law provides also for a National Council for Higher Education and Research also composed of elected representatives of:

- universities;
- independent public institutions of higher education and research;
- and (for a third) outside personalities representing major national interests.

Here again election of members of the teaching staff and of students (who must both necessarily be members of university councils) are made separately and by secret vote.

The attributions of the National Council are multifold. It mainly prepares planning for higher education and research, advises on programmes and budgetary requirements of universities and, in general, gives advice to the Minister.

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(2) The latter can also be independent from a university.

(ii) Administrative autonomy and participation (Chapter III)

One of the originalities of the law is to break away from the napoleonic tradition of centralization which vested in all matters final decision in the hands of the government. It is argued that the law has not entirely done away with this authoritarian way of governing university affairs. But a great step has been made.

Universities, as well as independent public institutions of higher education and research, have the right to work out and adopt their own internal statutes as well as to establish links with other university institutions.

Universities and other public institutions of a scientific and cultural nature are administered by an elected council of not more than eighty members. This council in turn elects a Chairman (President) among its members. The Chairman should be a full professor. His term of office is of five years and is not renewable immediately.

These councils are composed of the four following categories of members in order to ensure maximum participation of all to university affairs:

- Teaching staff;
- Research workers;
- Students;
- Representatives of the non-teaching staff.

The statutes should also provide for membership of external people chosen for their competence, principally at local level. The number of such people should not be less than a sixth and not exceed a third of the total.

Another essential aspect of the membership of these councils is that the representation of the teaching staff at the level of chairholder, lecturer and assistant should at least be equal to that of students and that in the teaching staff the proportion of professors and lecturers should be at least of 60% of the whole of the teaching staff.

The statutes should also provide for Scientific Councils composed exclusively of chairholders or lecturers (with the possible participation of research workers and scientific advisers) to be responsible for determining research programmes and allocations.

All participants in these various committees are elected by secret vote. As regards the students the law stipulates that they are elected by proportional representation and that there should be a quorum amounting to 60% of the students regularly inscribed. Should the number of students actually taking part in the vote be inferior to this quorum the number of seats would be reduced in the same proportion. Representation of first year students should not exceed a fifth of the total number of representatives of all students.

### (iii) Pedagogical autonomy and participation ( Chapter IV)

Within the limits specified in the law, public institutions of a scientific or cultural nature as well as teaching and research units determinate themselves their teaching activities, their research programmes, their pedagogical methods, their methods of control and assessment of learning and aptitudes. The Minister, however, reserves the right to define studies leading to a national degree as well as the means of obtaining such degrees.

Continuous and regular assessment of learning and aptitudes is made by the teaching staff. Terminal examinations should only be a supplementary control. A doctor's degree is obtained by presentation of a thesis, such presentation can be made individually or by a team. In the latter case the candidate should justify his personal contribution by presenting and defending a memoir.

Another new aspect is that universities should prepare orientation courses which are compulsory for all new students in order to guide them towards the type of studies for which they are the most suited. Such orientation should become a permanent duty of the university as regards students of all level at the end of each cycle of studies.

Universities should also:

- inform and advise students on possible employment and careers to which their studies can lead;
- adapt the teaching to professional needs;
- make special arrangements for students who are already engaged in a profession, whether or not they possess a university degree;
- organize permanent education in connection with local and regional authorities, public institutions and other interested institutions;
- organize physical education and sport.

### (iv) Financial autonomy (Chapter V)

It is the Minister's privilege (with the advice of the National Council for Higher Education and Research) to allocate to the institutions the finances which are provided globally by the national budget of the current year for personnel, researches and running costs, as well as for new equipment. These institutions in turn act likewise with the teaching and research units which depend on them. The annual budget of each institution is published.

### (v) The teaching staff (Chapter VI)

The members of the teaching staff of public institutions of a cultural or scientific nature are mainly State personnel. The law provides nevertheless the possibility of teaching being performed by research workers, outside personalities or even qualified students. Members of the teaching staff in foreign countries can, under certain conditions, become members of a French institution's teaching staff.

Appointment of professors, lecturers and assistants is made by bodies composed exclusively of members of equal rank. Present dispositions regarding chairs personally attributed to professors are abolished. All requirements regarding the teaching are fixed by the bodies concerned (duration, residence, etc...).

One of the most important articles of the Law (No. 34) reaffirms the complete independence of the teaching staff and their entire liberty of expression in the exercise of their teaching duties and their research work, with the only restriction of objectivity and tolerance of opinion.

(vi) University franchise

The law specifies that objectivity and tolerance of opinion are incompatible with all forms of propaganda and should remain outside of any political or economic influence. Students should have a complete liberty of information regarding political, economical and social problems on condition that these do not infringe on the teaching and research activities, lead to no monopoly or propaganda and do not disturb public order. The Chairman of the Council is responsible for order in the university precincts.

(b) Main features of the law

Three main ideas have inspired the authors of the law. These are:

- Autonomy;
- Participation;
- Multi-disciplinary approach to studies.

The first two concepts are self explanatory. The public institutions of a scientific or cultural nature are a new type of institution, invented by the legislator, which attempts to provide a compromise between, on the one hand, the requirements of strict budgetary control and service to the nation, and, on the other, the necessary university freedom which presupposes the participation of all in the taking of important decisions.

Even though universities are, by definition, "public insitutions of a scientific or cultural character" one can conceive of public institutions of a scientific or cultural character with the same status but without the title of university. Four institutions of this kind are already in existence: the Institute of Political Studies in Paris and the National Polytechnic Institutes in Nancy, Grenoble and Toulouse. This distinction arises out of the legislator's fundamental principle of granting the title of university only to institutions grouping a large number of specialists in various disciplines. To give a general idea (without laying down any hard and fast rule) a typical university would seem to be an institution comprising 15,000 students and between 1,000 and 1,200 teachers in a very large number of disciplines. By introducing each discipline into the syllabus in suitable proportions it is possible to offer a very wide range of educational opportunities. Smaller, more specialized institutions, which are not officially called universities, may nevertheless have the same prestige since the courses they offer are of a very high standard

This leads to the third and essential characteristic of the law which is pluri disciplinarity. The underlying principle is that students who have the opportunity of studying various branches should be able to discover their interests and make a better choice of the line they will follow. They should not simply be offered a sort of "a la carte menu". An accumulation of knowledge without principal and subsidiary subjects must be avoided. The law has therefore attempted to reconcile two requirements which are fundamental to the working of the university. The first requirement is for "disciplinary" structures (mathematics, languages, physics, biology, sociology, etc...) grouping all these engaged on teaching and research within a single discipline. The only careers open to students in these disciplines will be in teaching or research. However, the second requirement for the university is for "formative" structures providing specialized training for engineers, administrators, doctors, primary school teachers, etc...., who have acquired their qualification by attending suitably arranged courses in each discipline.

The student first enters a formative structure and receives instruction in each discipline in carefully calculated proportions, but the disciplinary structures enable the specialists to remain grouped together. In this way one can expect the loose federation of disciplines to give way to a more sturdy construction in which the formative structures are the cement and the disciplinary structures the building stones.

A multi-disciplinary approach to studies is particularly essential in the first cycle of higher education where it corresponds to the needs of mass education giving students large orientation possibilities, developing their critical mind, their aptitude to learn, the initiation to new techniques of work and their preparation to permanent education.

To work out this principle the law needed clarification. A decree, published on 19 June 1970, established a credit system enabling students to take part courses, or units, thus giving them a variety of choice without obliging them to follow long full courses. A student engaged in physics can therefore complete the requirement for a degree by acquiring credits in the English language or in psychology. In the same way a student of arts can, if he wishes, include credits in mathematics.

The organisation of studies in view of a diploma thus becomes a cursus which can be composed of a number of credits obtained by various units each representing 2 or 3 hours of work a week. University should of course avoid becoming a sort of "snack bar" where students would choose their units in a haphazard way. A student should choose first a main subject representing 8 or 9 units which should be completed by subsidiary units (7 or 8) still connected with the main subject. To these could be added some free units (4) making a total of 20 (40 to 60 hours a week).

### (c) A few figures

In May 1970 there existed in France 736 teaching and research units grouped in 56 universities (43 regional universities and 13 in the Paris area) and 6 university centres. This list is, of course, undergoing constant changes.

The new National Council for Higher Education and Research is to come into being in 1971.

680,000 students were expected in autumn 1970, in universities, University Institutes of Technology and National Schools of Engineering dependent on universities. This figure shows a progress of 8% as regards 1969 but is lower than the average over the last ten years (10%). It is interesting to note that in 1970:

(i) The number of students in Science is diminishing;
(ii) The number of students in Arts is remaining stable;
(iii) The number of students in Law and in University Institutes of Technology is greatly expanding.

The number of students registered does not automatically give the number of actual students. An enquiry made at the Faculty of Science of Paris reveals that 18% of the first year students do not inscribe themselves for the final examination and 9% of those who do inscribe themselves do not actually attend.

The budget for 1971 for Education in France (which includes all types of education) is of 29 billion, 750 million francs on a total national budget of 176 billion francs. It is the most important single item of all other government expenditures. With an increase of 14 percent as compared with 1970 the educational budget has grown at a rate far superior to the average of all ministries which is only 8.70%.

## 2) United Kingdom

Changes in the United Kingdom have taken place gradually under social rather than political pressure. Most of the present trends must be seen in the light of the very important Report of the Committee on Higher Education known as the "Robbins Report" which was published on October 23, 1963.

This report has affected:
- The Binary Policy
- The Ministry
- The University Grants Committee
- The Committee of Vice Chancellors and Principals
- The Colleges of Education
- The New Universities
- The Polytechnics
- The Open University

### a) The Robbins Report (1)

A Committee on Higher Education under the chairmanship of Lord Robbins was set up by the Prime Minister in February, 1961 to: "review the pattern of full-time higher education in Great Britain and in the light of national needs and resources to advise Her Majesty's Government on what principles its long term development should be based". Their Report proposed the drastic extension and revision of the system of Higher Education based on two assumptions: that:

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(1) A large part of this section is taken from the "Report from the Select Committee on Education and Science (Session 1968-69) Student Relations Volume I (H.M. Stationary Office, 1969).

i) it should be available for all those who were qualified by ability and attainment to pursue it and who wished to do so,
ii) an enlarged university sector should remain the center of the system.

The Report's recommendations were based on a formidable body of statistical evidence. The Committee calculated that the number of full-time students should increase from 116.000 in 1962-63 to 558.000 in 1980-81 and argued that the percentage of students in the universities should remain at 60% of the total number of full-time students. In order to meet this demand the Report recommended that:

i) Six new universities be established to provide about 30.000 places by 1980;
ii) many existing universities should expand to accommodate 8.000 or even 10.000 students
iii) the university sector should be extended by giving university status to some of the regional colleges, central institutions and Colleges of Education which would provide a further 20.000 places;
iv) Colleges of Advanced Technology should become "technological universities" where the proportion of post-graduate students was expected to increase from 4% to 15-20%.

"The recommendations of the Robbins Committee dominated the quinquennial picture. Stemming in large measure from these recommendations many changes took place during the quinquennium; in their magnitude, in the speed with which they were carried through and in the very large sums of public money involved, they transformed the university scene. But they presented the Universities with a host of problems constitutional, academic, administrative and financial".(1)

The calculations of the Robbins Report were deliberately based on assumptions of student demand rather than on any detailed predictions of national manpower needs. However, the Report pointed out that within the total field of science and technology less emphasis was given to technology and more to pure science than in other comparable countries and sought to correct this by giving "technology the prominence that the economic needs of the future will surely demand", proposing therefore:

i) first that a small number of special institutions for scientific and technological education and research (SISTERS) be set up, four attached to present institutions and one in conjunction with a new university, devoted to technology in partnership with science, and containing up to

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(1) Report on the Quinquennium 1962-67, by the Committee of Vice-Chancellors and Principals of the Universities of the United-Kingdom. This important document is frequently quoted in this paper.

4.000 students;

ii) provision be made for a growth in the proportion of students taking science and technology. "Our views would best be met if half of the students reading science and technology in 1980 were engaged in technological studies, compared with some 43% at present". (1)

The Report was criticized by some on the grounds that the expansion proposed inevitably involved the deterioration of standards. Would the traditional form of the university be able to cope with the numbers involved without drastic alteration?

It was criticized by others because it did not give sufficient attention to the special manpower needs of a modern technological society. Most importantly it had ignored the whole question of "the part to be played by students in running their own affairs and the affairs of the universities and colleges". (1)

The Robbins Report was published on October 23, 1963. The Government immediately issued a White Paper accepting its quantitative recommendations up to 1973-74, and the university sector was expanded by the inclusion of the Colleges of Advanced Technology as universities.

The immediate expansion plans were to be the first step in formulating a ten year programme involving 218,000 full time university places by 1973-74. For this purpose the University Grants Committee asked the universities to indicate, by the end of November, 1963, what contribution they would be able to make to the proposed scheme of expansion. In aggregate the universities offers far exceeded the numbers required to meet the Robbins Committee objective. The requirement was 197,000 places in universities by 1967-68, but they were prepared to provide 20,000 more. Although the response of the Universities to the Recommendations of the Report made the creation of six new universities unnecessary a new university in Scotland remained a priority. This university was created at Stirling and in October, 1967, received its first student.

Aims and Objectives:

The Robbins Report was not merely a blueprint for expansion. The Committee declared that "there are at least four objectives essential to any properly balanced system.

i) We deceive ourselves if we claim that more than a small fraction of students in institutions of higher education would be where they are if there were no significance for their future careers in what they hear and read. It must be recognized that in our own times, progress- and particulary the maintenance of a competitive position- depends to a much greater extent than ever before on skills demanding special training. A good general education, valuable though it may be, is frequently less than we need to solve many of our most pressing problems.

ii) But, secondly, while emphasing that there is no betrayal of values when institutions of higher education teach what will be of some practical use, we must postulate that what is taught should be taught in such a way as to promote the general powers of the mind. The aim should be to produce not mere specialists but rather cultivated men and women.

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(1) Report from the Select Committee on Education and Science

iii) The third objective is "the advancement of learning...the search for truth is an essential function of institutes of higher education and the process of education is itself most vital when it partakes of the nature of discovery.

iv) Finally, there is a function that is more difficult to describe concisely, but that is none the less fundamental: the transmission of a common culture and common standards of citizenship. (1)

Academic matters

The report recommended that:

i) the syllabus of first degree courses should be regularly reviewed to avoid overloading;

ii) a higher proportion of students should receive a broader education for their first degree;

iii) There should be more courses involving the study of more than one main subject;

iv) arrangements should, wherever possible, allow a student to postpone his choice of special subject until the end of the first year or to change his course of study then, if necessary with an extension of grant;

v) students who do not live up to their early promise should be transferred, after their first or second year, to less exacting courses.

Teaching

The recommendations in this field were that:

i) more teaching should be undertaken in small classes;

ii) lectures should normally be devoted to the exposition of principles to large audiences;

iii) every student should be regularly assigned a tutor and should receive regular personal guidance;

iv) every student should be regularly set written work which should be returned and discussed with him;

v) discussion periods should complement lectures;

vi) all newly appointed junior teachers should have organized opportunities to acquire the techniques of lecturing and conducting discussion groups.

Postgraduates

It has been estimated that the proportion of postgraduates staying on rose from 46% to 60% between 1961-62 and 1966-67, while the proportion of postgraduates as a percentage of total full-time students rose from 14.8% in 1963-64 to 16.3% in 1966-67. Lord Robbins said that at the London school of Economics "the results are almost bewildering...our habits have been totally changed in the past two years."

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(1) Report from the Select Committee on Education and Science.

## Residence

The Robbins report emphasized that institutions of Higher Education are not merely places of instruction: they are communities: "We do not wish to see closed academic communities with staff and students forming a kind of world within the world. But, in order that staff and students can meet readily, institutions should ensure that a sufficient proportion of the teaching staff can live at a reasonable distance from their work and do not have to spend so much time on travel that they feel reluctant to return in the evening.

Facilities should be provided by the institution so that teachers can not only meet pupils but entertain them. It is difficult for teachers and their wives to arrange at home for the amount of entertainment of pupils, colleagues and visitors from other universities and from abroad that is desirable. There should be places provided by the institution where they can offer suitable hospitality.

The Robbins Committee recommended that residential accommodation should be provided for a number equivalent to two thirds of the additional students coming into all sectors of Higher Education. In their opinion, "the gravest of all the problems for the universities in the next five years will be the problem of providing places where students can live".

## Negative aspects

Some of the recommendations of the Report have been rejected. There is not a Minister of Arts and Science nor a Grants Commission responsible for advising the Government on the needs of all autonomous institutions of Higher Education in Great Britain and for distributing grants to them. The Colleges of Education have not become parts of the universities. The Robbins Report envisaged a unitary system of Higher Education but the Government, by introducing the binary principle, has divided the universities from the rest of Higher Education.

## b) The binary policy

On April 27, 1965, in a speech at Woolwich Polytechnic, the Secretary of State outlined the Government's plan for Higher Education based on the "twin traditions which have created our present higher education institutions" the autonomous university sector and a distinctive sector of Higher Education within the Further Education system. "The Government" he said, "accepts this dual system as being fundamentally the right one, with each sector making its own distinctive contribution to the whole. We infinitely prefer it to the alternative concept of a unitary system, hierarchically arranged on the "ladder" principle, with the universities at the top and the other institutions down below. Such a system would be characterised by a continuous rat-race to reach the First or University Division, a constant pressure on those below to ape the universities above, and a certain inevitable failure to achieve the diversity in education which contemporary society needs."

The binary system which has developed into its present form from around the turn of the century has remained the touchstone of thinking in the Department of Education and Science. On the one hand there has been what is generally known as the autonomous sector of higher education, represented by the universities, which are independent and conduct their own affairs, and on the other the public sector, represented by the technical colleges and the teacher training colleges, which are maintained mainly by the local education authorities.

Of the students now in full time higher education, about 52% are in the universities, 30% in teacher training colleges, and 18% in the technical and other colleges (including the new polytechnics).

Some criticizm

This view is not shared by all concerned. "The Robbins Committee Report has held out hope not only for the colleges of education to be administratively merged with the universities, but also for some of the leading technical colleges to take their place in due course in the ranks of university institutions, either as universities in their own right or by federation of all or parts of them with existing universities. The Robbins Committee Report had presented the picture of an open-ended system, with an increasing measure of autonomy and academic freedom for non-university institutions, and the possibility of a great deal of movement, both academic and institutional, towards closer relations with, or even integration into, the universities." (1) When Lord Robbins was asked himself in December, 1965, whether, had he anticipated this development, he would have modified his Report in any way, he replied: "If I had known that anything so reactionary and half-baked as the binary system was going to be propounded I certainly would have suggested adding a few paragraphs to the Report dealing with this as it deserves".

It has often been said that the formulation of the binary system has afforded a basis for the division between universities and the other sector of Higher Education within Further Education. This distinction has been drawn at a time when it has become increasingly difficult to define the differences between the various institutions. Formerly, universities were distinct because, although not all their students were taking degree courses, universities alone were empowered to grant degrees. Now other institutions enjoy academically an equal status because they grant awards of degree equivalent. Nevertheless, because such awards are made subject to the control of independent national bodies, such as, for example, the Council for National Academic Awards, universities still enjoy an autonomy not shared by the non-university institutions.

Another matter which previously tended to distinguish universities was that the courses at non-university institutions were more specialized and vocational, but the creation of technological universities has made this distinction less rigid and, there has been a considerable increase in the range of courses at the non-university colleges, many of which approximate closely to conventional degree courses.

Formerly non-university students tended to be from the immediate locality and university students from a much wider area, but many of the larger non-university colleges, having acquired substantial public reputations draw more and more students from further afield. The distinction will certainly become increasingly less significant as the Polytechnics develop.

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(1) Report on the Quinquennium, 1962-67 by the Committee of vice-chancellors.

The local character of the non-university colleges is becoming less and less significant in distinguishing them from universities. In the content of the courses they teach, their association with the national bodies is more important than the link with the local education authorities.

It is against this background of a binary system which in practice does not solely reflect the different functions of colleges and universities but also involves differences in social amenities and status, that the government and structure of the various institutions within Higher Education should be viewed. (1)

c) The Ministry (Secretary of State for Education and Science)

The Report of the Robbins Committee had considered four main possibilities for future Ministerial responsibility for the universities: the Chancellor of the Exchequer, the Lord President of the Council, a Secretary of State for Education, and a Minister for Arts and Science. The argument for rejection of the Chancellor of the Exchequer followed the lines of the Treasury's evidence. The Lord President of the Council was rejected on the grounds that as a minister without Portfolio with only a small personal office and no departmental organization he would not have a suitable machinery for assessing the advice received from the University Grants Committee and treating claims in competition with claims from other departments. The concept of a single Secretary of State for Education was rejected on the grounds that to place all education under one Minister would be to give him too wide and differing an area of responsibility, that the administrative methods suitable for dealing with autonomous institutions through a Grants Committee were very different from those required elsewhere in the educational system, and that the organic connection of the universities with research was even closer than their connection with the work of the schools. A Minister for Arts and Science was recommended, with responsibility for the autonomous institutions which would be controlled on the grants committee principle, and for the Research Councils and other state-supported activities already administered on principles resembling those of the Grants Committee.

As a first step the Government decided that the Lord President of the Council should become responsible for co-ordinating the work of Departments concerned with higher education. An additional Second Secretary in the Treasury was appointed with the responsibility of assisting the Lord President generally in relation to higher education and science. This arrangement came into force on December 10, 1963.

The final arrangements were announced on February 6, 1964, and came into effect on April 1 in that year. Despite the recommendation of the Robbins Committee, a Secretary of State for Education and Science became the single Minister with total responsibility over the whole education field.

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(1) Report from the Select Committee on Education and Science,

Under him, within the single Department, was a separate administrative section concerned specifically with civil science, with the University Grants Committee and with university institutions. The Secretary of State for Education and Science was supported by two Ministers of State and the new Department organized under two joint permanent under Secretaries of State. While the Department was to have a number of common services, the financial systems on the two sides were the responsibility of separate Accounting Officers.

There was considerable uneasiness in the universities about the implications of the new Ministerial arrangements. There were doubts whether, whatever the division of functions within the Ministry, the placing of responsibility for the universities in a single Department of Education could be compatible with university autonomy.

One advantage of the new Ministerial arrangements was to be that university affairs could be brought more regularly before Parliament and the country. (1)

### d) The University Grants Committee (U.G.C.)

The University Grants Committee dates back to 1919. It was up till recently appointed by and responsible to the Chancellor of the Exchequer. Its membership is of 20 with full-time chairman and a part-time Deputy Chairman. 13 of its members are recruited from the universities, 2 are concerned with other forms of education and 3 are drawn from industry. It has a staff of about 120. The Committee has wide terms of reference to:

i) inquire into the financial needs of university education in Great Britain;
ii) advise the Government as to the application of any grants made by Parliament towards meeting them;
iii) collect, examine and make available information relating to university education throughout the United Kingdom;
iv) assist, in consultation with the universities and other bodies concerned, the preparation and execution of such plans for the development of the universities as may from time to time be required in order to ensure that they are fully adequate to national needs.

It is, of course, the body through which public money is channeled to universities and it has in this respect a dual function to:

i) advise the Government on the total financial provision to be made for the universities and
ii) allocate that total provision, when made, between the individual universities.

By convention, the Government has not inquired into, or questioned, the U.G.C.'s recommendations on the allocation of the money between one university and the other. In performing this function, the UGC is jealous of its independence and sensitive to pressures, political or otherwise. Although it is now attached to the Department of Education and Science, it remains an invaluable buffer between the Government and universities.

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(1) Report on the Quinquennium 1966-67 by the Committee of Vice Chancellors

In the words of the Robbins Committee, the University Grants Committee is "a committee independent of politics and not subject to ministerial direction". It does, however, advise a departmental minister who is, in turn, assisted by a full time Minister of State for the university and science part of his portfolio. Effective working links have had to be forged between the UGC and the Department for the mutual information of each, and so that the Minister may discharge what responsibilities he feels he can take in the House of Commons for the universities. With the increase of public interest in university affairs, the growth in the number of universities and in public expenditure on them, the UGC has increased decisively in importance and in its impact on the universities. The process has been marked by substantial increase in its permanent staff, by a formal recognition by the universities that the professorial members of the UGC should make a fifth of their time available for UGC business, and by a considerable extension of the system of expert advisory sub-committees and panels.

Another factor working to enhance the role of the UGC is the position it has come to occupy in regard to new universities. The creation of new foundations in the later 1950s and the 1960s has been the result of express political decision. For these new universities the local sponsors were invited to set up Academic Planning Boards. This they did in consultation with the UGC, which was kept closely in touch with each phase of their work. Similarly, when the colleges of advanced technology attained university status in 1965, they did so under the aegis of the UGC.

It was easily predictable that 44 universities could not exhibit the same degree of individual independence in their behaviour as had still been possible for half that number. The UGC found it necessary to move very quickly into the characteristic new style it was to assume, of developing norms and standards as the basis of grant allocation to the universities in successive areas of their operation as these became more amenable to analysis and regulation.(1)

Finance

The Government contributes about 70% towards the current income of universities in Great Britain and bout 90% towards their capital programme. Money is given mainly in the form of block grants to the University Grants Committee which then distributes the grants to individual universities. Recurrent grants for 1970-71 are estimated at some £182 million, over three time the amount for 1960-61. Capital grants paid out during 1970-71 are expected to be about £ 59 million, or three times the 1960-61 figure.

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(1) Report on the quinquennium 1962-67 by the Committee of Vice Chancellors.

### e) The Committee of Vice Chancellors and Principals CVCP

The Committee of Vice Chancellors and Principals has an important role in university development. The Robbins Report noted that: "If there is to be a more definite formulation of a higher education policy in future, and if the exercise of undue influence on the universities by the Grants Commission is to be avoided, the responsibilities of the Committee of Vice Chancellors and Principals are bound to increase".

The CVCP has indeed expanded its activities over the years but it remains essentially advisory in character. It has no executive power.

This may be attributed in part to the structure of the university system, which not only reduces the influence of the Committee of Vice Chancellors and Principals vis-a-vis its own members and its effectiveness as a clearing house, but also makes its relations with other bodies somewhat complicated. Although it has informal relations with the Department of Education and Science, the existence of the UGC makes formal relations between the CVCP and the Department on any matter concerning university finances impossible.

On the other hand its action is essential as a clearing house for ideas, for information and for concerted action.(1)

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(1) Report from the Select Committee of Education and Science, ".. the importance of government decision regarding the scale of provision for university places and in consequence for staff, buildings and equipment, made it essential that the Committee should not only be in a position to react when consulted but should also be so organised as to keep such matters under regular review, and where appropriate to initiate and develop proposals for presentation on the universities' behalf.

These considerations led to proposals for a substantial revision of the Committee's structure and an expansion of its secretariat. The principal areas of activity were identified and five Divisions of the Committee were established, each consisting of a section of the total membership, and charged with keeping under continuous review the matters falling within its designated sphere. Broadly, the Divisions cover university development and capital finance, recurrent finance, staff and student matters, academic matters, and relations with universities overseas. Each Division is small enough for effective work, and is empowered to consult and communicate with outside persons or bodies as may be necessary, short only of committing the main Committee without specific authority. The Committee and its Divisions are supported by a number of sub-committees, mainly specialist in nature. These sub-committees are each under the chairmanship of a member of the Committee, but their membership may be partly or indeed wholly non-vice-cancellarial." (Report on the quinquennium 1962-67 by the Committee of Vice Chancellors)

## F) The Colleges of Education

The Robbins Committee made recommendations for far reaching changes for the training colleges (to be renamed colleges of education). The principal propesals were that:

i) Four-year courses leading to a university degree of B.Ed. and a professional qualification should be provided in the colleges for suitable students;

ii) The colleges in each institute, together with the university department of education, should be formed into a shool of education;

iii) Colleges should have independent governing bodies and should be financed by earmarked grants made through the universities to the schools of education;

iv) Each shool should have its own academic board and boards of studies and be responsible academically to the university senate for the degrees awarded to students in colleges of education.

v) Local education authorities should be appropriately represented on the governing bodies of the colleges for which they were then responsible and of the shools of education.

Such a major proposal for reorganisation was clearly of close interest and concern to the universities.

In December 1963 the UGC invited individual university views on the relevant Robbins Committee recommendations. Nothing further was heard until a year later, when the Secretary of State announced that he had found widespread agreement with the Robbins Committee proposals for close academic links between the colleges and the universities, including the granting of degrees, and that the Government hoped that the universities would proceed to work out the form which such courses should take and the nature of the degrees to be awarded. The Government had, however, decided that the academic and administrative aspects of the proposals were separable, that fundamental changes in the administrative and financial structure of the teacher training system should not be made, particularly at a time when the colleges were engaged in a very large and rapid expansion.(1)

There are over 160 colleges of Education in England and Wales, varying in size from about 250 to over 1800 students. There are also five departments of Education in polytechnics and other colleges providing similar courses. About two thirds are maintained by the local education authorities. The remainders are mostly associated with religious denomination and are run by voluntary bodies.

The main purpose of the colleges is to provide three-year courses for students who will later work either as general teachers in primary or secondary schools, or as specialist teachers of certain subjects in secondary schools.

## G) The new Universities

Ten universities of completely new foundation have been established since the second world war. Keele was the first to open in 1949,(2) followed by Sussex in 1961 and York and East Anglia in 1963. Essex and Lancaster took their first students in October 1964, Kent (at Canterbury) and Warwick in 1965, Stirling in 1967 and the New University of Ulster, at Coleraine in 1968.

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(1) Report on the quinquennium 1962-67 by the Committee of Vice Chancellors.

(2) As a university college, but able to grant its own degrees. It received a charter as a university in 1962.

The "new universities" are distinctive in being able to award their own degrees from the start, which has enabled them to experiment with the structure of courses and degrees to a much greater extent thatn the universities which originally worked for London degrees. They are also highly residential. York, Essex, Lancaster, Warwick and Kent have introduced a modified collegiate sysytem; all students and a large number of staff are connected with college or hall units whether they are in residence or not.

The new universities aim to have 3000 students each by the early 1970s but will probably have at least 6000 students by 1980. Ultimate student populations of 2000 each are possible for the universities of Essex and Warwick.

Since 1963 another 12 universities have been created from existing institutions already engaged in higher education. Two of these, the universities of Newcastle upon Tyne, opened in 1963, and Dundee, opened in 1967, were former constituent colleges of the universities of Durham and St. Andrews respectively. The other ten -those of Aston, Bath, Bradford, Brunel, City, Heriot-Watt, Loughborough, Salford, Strathclyde and Surrey- were estabilised between 1963 and 1967 by the conferring of university status on eight former Colleges of Advanced Technology in England and Wales and two Scottish institutions of similar type (known as Central Institutions). In addition, two other former Colleges of Advanced Technology have become constituent colleges of existing universities on each of the universities of London and Wales.

Although there are some broadly based courses the traditional honors course consists of three or four years' specialised study. However, the new universities are broadening the curriculum in nearly all respect. At Keele, students take a common first-year course and then have to take both art and science subjects. Sussex, East Anglia, Essex, Kent, New University of Ulster and Warwick have schools of studies in which a number of subjects are related. At York students may choose between single subject or combined-subject degrees.

b) The Polytechnics(1)

The colleges of advanced technology having become universities, the important question on the future development of higher education within the further education system was whether or not the leading colleges that remained were also to develop as institutions having university status as their goal. The government, in accordance with its binary policy, concluded that they should not, and that their future should lie within the further education system where they could develop on their own distinctive lines as providers of higher education at all levels for full-time sandwich and part-time students. The proposals published in May 1966 in the White Paper "A plan for polytechnics and other colleges" were based on this belief that the role of the colleges was and should remain essentially different from that of the universities.(2)

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(1) Part of this chapter is extracted from "The place of polytechnics in higher Education in England and Wales. Report submitted in February 1970 by the United Kingdom delegation to the Committee of Higher Education and Research of the Council of Europe.

(2) In May 1970 the Vice Chancellors stated that "There should be a clear understanding of the respective roles of the universities and the polytechnics, not least so that there should not be a wasteful distribution of resources stemming from an inadequate recognition of their distinctive tasks".

These proposals were also based on the conclusion that the existing provision for full-time (and sandwich) higher education in colleges of further education was scattered too widely and that, if the available resources were to be used to the best advantage, such work should be concentrated in a limited number of strong centres. These centres, to be known as polytechnics, would have the staff, buildings and equipment to achieve and maintain high standards and to provide the proper setting for an active community of staff and students. They should have at least 2000 full-time students in due course, plus part-time students from the surrounding area; some might well be much larger than this.

The polytechnics were to be formed from existing institutions already substantially engaged in higher education. In some cases the right course would be to develop a single college as a polytechnic, but in others two or more colleges would be merged, the aim being to create institutions which could develop on comprehensive lines offering courses in a broad range of subjects and capable of developing the interdisciplinary studies.

It was not intended that the polytechnics should have a complete monopoly of higher education in the further education system. Some of the other colleges already engaged in full time higher education would continue such work where there was a need which could not be met by the polytechnics and there was adequate student support. Many colleges would continue to offer a wide range of part-time advanced courses to meet local needs.

The White Paper indicated that it was not intended to consider adding to the initial list of polytechnics for about 10 years. The purpose of this was to give all concerned a firm foundation for the development of the new institutions, for the planning of course development and for the allocation of resources; and to encourage other colleges to concentrate on their responsibilities for other categories of students.

The White Paper included preliminary proposals for the establishment of twenty-eight Polytechnics but the initial list was reviewed in the light of views expressed by Regional Advisory Councils, Regional Economic Planning Councils, local education authorities and other interested bodies. In April 1967 the then Secretary of State announced firm proposals for twenty-nine Polytechnics, reserving his final decision on the location of the thirtieth, and invited the local education authorities concerned to prepare schemes for their establishment.

The polytechnics will differ from the universities in a number of ways. Their most distinctive characteristic will probably be their "comprehensiveness", both in the nature of the student body and the level of course offered. The universities cater almost entirely for full-time students, although in certain disciplines some courses may be of a sandwich nature; and students are with few exceptions working for first or higher degrees. They also have, invariably, a large research commitment. The polytechnics, on the other hand, although, like the universities, they will be dealing almost wholly with students over the age of 18 years, will offer courses at four different levels, namely:

i) Courses which, although at an entry level below that required by university courses, require a marked degree of maturity, which means that their students are more appropriately catered for in a post-18 establishment.

ii) Full-time and (particularly) sandwich courses at sub-degree level. These are courses, which require previous study to the same level as that expected of those entering degree courses, but not the same degree of success.

iii) Full-time and (particularly) sandwich courses for first degrees at both honors and ordinary level. These will usually be CNAA degree courses which are of a standard equivalent to those of universities but which are often more closely aligned to the needs of industry and business.

iv) Courses (and/or research) leading to higher degrees, usually of the CNAA. These studies, too, may be closely related to industrial or business interest. However, as the research effort in polytechnics is planned to be much less than that in universities, it is likely that the proportion of higher degree work will also be lower.

In addition they will be providing courses for part-time day and part-time evening students, both at sub-degree and degree level. This will insure that the polytechnics will number in their student body many thousands of young people, at both technician and professional levels, who are engaged most of the week in employment within industry or business.

Thus, socially and academically, the polytechnic student body is likely to more "comprehensive" than that of the university. The academic range will be greater, for it reaches down to include the important sub-degree areas. Also the student population will include full time students; sandwich course students spending a half of each year in industry or business; part-time students earning their daily bread for most of the week, whilst spending a day and one or two evenings in the polytechnic; and also adult students who have already, perhaps, seen a good deal of life outside student institutions. It is hoped that association in one comprehensive institution will bring mutual benefit to these different types of students. It is this comprehensiveness of the student body which above all can achieve for the polytechnics a special and unique place in the higher education system.

The range in the level of higher education courses offered has the great advantage of permitting students who find a course too exacting to transfer to another at a lower level and students who demostrate that their ability warrants it to transfer to higher level courses. This is helped by many CNAA honors and ordinary degree courses having a common first year at the end of which the student can proceed to the course most appropriate for him and by the ability of colleges, in suitable cases, to promote students who have completed the first year of a Higher National Diploma course to the second year of a degree course. This flexibility is a safeguard against wastage and helps to insure that students are challenged up to the limit of their ability, but not beyond it.

This built-in student mobility must be considered an important aspect of polytechnic organization. The general certificate of education at advanced level, the results of which are the commonest criterion for admission to degree courses, are by no means highly accurate prognostications of subsequent academic performance. It is therefore most desirable, especially for those students who are at about the borderline level, to have an arrangement which enables them to progress in accordance with their ability.

Thus the polytechnics can claim to provide, within the higher education system, the means whereby students can attain the highest educational level of which they are capable; and at the same time they offer a second chance to those who, too early, have chosen to leave the road of full-time education.

It is worth, in this respect quoting that in the Report on the Quinquennium 1962-67 the Committee of the Vice Chancellors and Principals expressed certain reservations about the development of the new proposals. "The prospect is of the polytechnics becoming principally concerned with full-time courses at degree level and, by thus departing from the concept of institutions complementary to the universities, diminishing the provision for the vitally important task of meeting the need for technical education and training at the sub-degree level. There arises the need, moreover, for decision in principle as to the distribution of future degree students between the universities and institutions in the public sector. It is sometimes assumed that such a decision can be vested simply on considerations of relative cost. Even if this were accepted, no comparative evidence has yet been produced to support the contention that a degree student can be educated more cheaply in a public sector college."

### Organisation

Polytechnic Governing Bodies include representatives of the maintaining authority (not more than one-third of the total), members with relevant experience in industry, commerce or the professions including trade unionists, the Director and other members of the academic staff, representatives of the students and, as a rule, other persons with relevant experience. The Governing Body appoints its own chairman.

### Finance

The cost of maintaining the Polytechnics is born initially by the local education authority or authorities providing them. But the Local Government Act 1966 (under which local authorities receive Rate Support Grant from the Exchequer in aid of their education and other services) provides for the sharing, or "pooling", among all authorities of their net expenditure on the provision of certain services including advanced further education, the object being to share equitably among all authorities expenditure on educational provision which by its nature must fall unevenly among them. Authorities charge to "the pool" any net expenditure they have incurred on the provision of advanced further education, and every local education authority in England and Wales makes a contribution to this pool on the basis of a formula designed to secure an equitable charge on each authority. As the Polytechnics will be concentrating on the provision of "advanced" i.e. higher education, courses all or nearly all of the net expenditure of maintaining a Polytechnic is likely to be chargeable to "the pool".

### Figures

While in 1961-62 there were only 23,000 full-time and sandwich course students following advanced courses in further education colleges in England and Wales (excluding the then Colleges of Advanced Technology), there were about 83,000 in 1969, nearly double the figure of 43,000 forecast by the Robbins Committee. And a continued expansion of student numbers is to be expected in the 1970s.(1)

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(1) Most of this part is taken from Reports on education issued by the department of Education and Science "The Open University" June, 1969.

## 1) The Open University (I)

The Open University Planning Committee was set up in September 1967 following the publication of the Government White Paper "University of the Air".

On 27th January 1969 the Government announced its acceptance of the Planning Committee's comprehensive proposals for the Open University.

### Objects

The objects of the Open University are to provide opportunities, at both undergraduate and postgraduate level, of higher education to all those who, for any reason, have been or are being precluded from achieving their aims through an existing institution of higher education.

The idea is that all the potential of modern mass-media can be combined with the conventional teaching methods- written work discussions and tutorials- to provide education of the highest standard. Such a concept could only have arisen at a time when technological advance has made widely available radio and television broadcasting on the one hand, and new techniques for presenting and recording material on the other. It both resulted from scientific progress and will, it is hoped, contribute to it.

In its planning the Committee has been much influenced by the experience of educational institutions, both in England and abroad, which have drawn on different media for teaching purposes, with the learner as the key figure. The advantages of broadcasting (both sound and television) as a teaching medium, will be made use of, while the need for regular written work, some self-instructional and self-correcting, and some corrected by tutors, is underlined as basic to the University's integrated system.

### Students

The opportunities offered by a university level institution, which can be taken up without disruption of an established pattern of living, will appeal to several kinds of people.

- first there will be those adults who were unable to obtain higher education in their youth and now, for the first time, are offered the opportunity of it in circumstances that make it possible for them to accept.
- those already in professions who need refresher courses to keep them in touch with the latest developments in their own field (such as teachers or doctors)
- those with potential to progress much further, who yet for various reasons leave school at the earliest opportunity.
- the large number with university entrance qualification who fail to obtain a place.
- people (particularly nowadays women who married young) whose maturing attitudes and changing economic circumstances incline them later in life to turn to study either to obtain better or different work, or simply for personal satisfaction.

The open university will thus be concerned primarily with adult students in full-time employment or working in the home. It will accept students who, when their course begins, are under 21 only if there are reasons such as physical disability or domestic or other circumstances, which make it impossible for them to attend a conventional institution of higher education.

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(I) See note 1, page 32

## Methods and Courses

No academic qualification will be required for registration as a student. Every student will be assigned to a regional counsellor, whose job will be to advise students. Tutors will also be assigned to the students. They will assess each written contribution by the student.

Maximum flexibility in the choice of courses and an interdisciplinary approach will characterize the studies at the University. Each course will consist of correspondence packages sent to the student by post. Integrated with the correspondence packages, will be a series of television radio programmes, broadcast on the normal frequencies, and short summer or weekend courses.

The degree courses student will follow, will be bery different from those in a traditional institution. To some extent the differences will be inevitable, arising from the different teaching media and student characteristics. But also some will derive from new and interesting educational trends, such as an interdisciplinary approach, which will be deliberately encouraged. The degrees offered will be general rather than narrowly specialized, covering a wide range of subjects. The course structure will be flexible, allowing students a wide choice. Naturally students will begin their courses with a wide range of educational experiencd so for the first year they will take a foundation course, designed to familiarize mature students with modern concepts in one of the following main lines of study:

- Mathematics
- Understanding science
- Literature and Culture
- Understanding Society

These courses will be devised so as to stimulate the interest of students with very varied backgrounds and at the same time make the intellectual demands expected in a first-year university course.

Student's work will be assessed both during and at the end of the academic year and those who have been judged successful in a course will receive a certificate that they have obtained one 'credit'. Degrees will be obtained by the accumulation of these credits, each representing success in a one-year course. All students will normally be expected to have two foundation course credits before going further.

The four foundation courses will be transmitted every year. Other courses will be offered as broadcasting time allows and courses which have to be taken in sequence will be broadcast more often than others. Each programme will be transmitted twice at different times of day and once made will normally be used for three years before being remade.

After the foundation course level, each main line of study will be broken down into about four components. Each component will be covered in two courses, each a year long and each counting as a credit, the second more advanced than the first. No advanced course will be tackled without a credit at the lower level, but apart from this limitation students will be allowed as much freedom as possible to choose subjects from any four lines of study. Thus, it will be possible to confine all one's studies within one main line, (say mathematics), or to study subjects from two, three or even four lines, subject to certain necessary limitations.

Degrees, though 'general' in type, will be offered at honors and ordinary level. Six credits will normally qualify for an ordinary degree and eight for an honor degree. Study for a degree may be spread over any period of years: three years would not be impossible but four or five are more likely in practice.

Continuous assessment of course work will be a feature of the university but the final examination at the end of each year's course will be essential for the establishment of standards. External examiners will be appointed for this purpose.

- Each degree course will use correspondence course techniques with assignments of work to be done by the student. This work will be linked to integrated radio and television broadcast which will initially impose a time-table upon the individual's work. The possibility of recording broadcast material is, however, being explored so as to reduce the rigidity of a programmd combining studge and listing or viewing. Discussion groups and short residential courses will also be arranged. Courses will run from January to December. Among other advantages the departure from the traditional academic year will have the effect of allowing residential courses to be housed in existing institutions during the summer and examinations to be held in November and December when both space and outside staff may be expected to be free of school and traditional university examinations.

To provide in this way full university- level courses leading to degrees comparable with those of the traditional insitutions remains a new and ambitious venture. It is essential for its success that its standards are seen to be as stringent as any in the country and it is intended that they should be so/.

The degree of Bachelor of Arts (B.A.) is offered on successful completions of these studies. (1)

To those who are already graduated or who possess equivalent qualifications, the University will offer courses leading to post-graduate degrees: Bachelor of Philosophy (B.Ph) master of **Philosophy** (M.Ph) and Doctor of Philosophy (Ph.D.). These will require respectively the completion of 1,2, and 3 years of full-time study or much longer if part-time.

Later on, the University intends to offer diplomas in special topics, and higher doctorates (Doctor of Letters or of Sciences or honoris causa degrees).

The university will also provide "updating" courses to enable people to keep pace with changes in modern technology,and "post-experience" and "conversion" courses to help facilitate movement between and upwards through various occupations.

## Organisation

In the initial years the production and transmission services of the University will be provided by the BBC, and agrement has been reached, in principle, between the Open University Planning Committee and the BBC for television and radio programmes up to 1975, with the BBC having agreed to provide 30 hours per week of television, and an equal amount of raido broadcasting time, these figures to be reached by 1974.

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(1) We have decided to offer only the degree of Bachelor of Arts (B.A.) without honors, and this degree will be awarded if nearly all the courses that a student takes are in science or technology. We are aware that this may cause some difficulty for graduates who have to explain that their B.A. degree is comparable to a B.Sc. from another university. On the other hand, there are precedents for this, as the Universities of Oxford and Cambridge and many other universities, in the English-speaking world already follow the same pattern: they, too, award only a B.A. degree even if all the courses are in science or technology.("The open university pros- pectus"), 1971.

The university will be organised in four different sections:

i) the central administration
ii) the academic departments staffed by full-time university teachers
iii) the educational technologists, who will provide expertise in relation to specialized course design, and for operational research
iv) and an administrative section linking the university headquarters and the regions.

Under its charter the University will, like all other universities, be an independent, autonomous institution, and its Charter and Statues have much in common with those of recently established universities. The unique nature and structure of the Open University are, however, shown in variations introduced to reflect its regional orgainsation and to allow for a direct influence by the regions on the control of policy. The General Assembly, representative of both staff and students, will elect representatives to the Council and the Senate through regional assemblies. In January 1971 the early plans will come to fruition when the Open University begins its teaching programmes and the first students embark on the first courses.

The executive governing body of the University is the Council which has ultimate responsibility for the conduct of all University affairs. The Council is concerned largely with the administration of the finances and business affairs of the University.

The members of the Council are drawn from both inside and outside the University with representatives from the academic staff (and later from the students), from institutions of both higher and further education, and from the BBC. There are also a number of members whose work is not directly connected with education but whose outstanding achievements in their own fields enable them to make a valuable contribution to the administration of the University.

The compostion of the Senate provides for representation of the full-time academic staff, the part-time tutorial staff and the educational technologists, all of whom will be developing the University's new teaching methods. The Senate is reponsible for the academic work of the University, directing and regulating the teaching and research and controlling all matters connected with examinations and the award of degrees. In early years, as in all new universities, academic decisions relating to the maintenance of academic standards are also the concern of the Academic-Advisory Committee, which is appointed by the Privy Council.

Finance

Because of the many ways in which the university will differ from others it will be grant-aided initially direct from the Department of Education and Science. It is estimated that overheads for a full year of operation, irrespective of the number of students, might cost about 3.5 million pounds, including the cost of the BBC's programmes and of maintaining the university's headquarters. Additional costs which depend entirely on the number of students cannot yet be assessed. In any circumstances the cost per studentshould be below that estabilished universities.

In 1969-70 expenditure is expected to be about 1.7 million pounds.

Conclusion

The unique character of this University represents an effort at democratization of higher studies. The fees are rather low (about 140 to 180 pounds for acquiring a B.A. degree). The fact however that the students are mostly part-time will need a strong motive to undertake this task. The methods also are new. One must not however exaggerate the contribution which broadcasting might make to the new enterprise. Educational broadcasting can be effective only around a nucleus of correspondence courses, discussion groups, short-term residential courses and personal contributions by the students.

Thirty thousand people were reported in May to have already applied for one of the four Open University foundation courses which will start January 1971, but an analysis of the first 25,000 applications gives weight to the growing fears that the university has so far shown few signs of becoming the university of the "second chance". More than 10,000 are from teachers, almost 3,000 from professional people, 2,500 from housewives, and 1,600 from administrators and managers, and the same number from scientists and engineers. On the other hand only 601 applications came from workers in manufacturing industry, mining, construction, and transport, and 769 applicants were shopkeepers and workers in sales and service industries.

Although the Open University is the product of twin enthusiasms for technology and greater social justice, it has been suspected for some time that the courses offered by the university would appeal to those who had already received an above-average education, The analysis of the first 25,000 applications tends to support those fears rather than the hopes of Lord CROWTHER, the chancellor of the Open University, who said in his inaugural address "Men and women drop out through failures in the system, through disadvantages in their environment, through mistakes in their own judgments, through sheer bad luck. These are our primary material".

It has been pointed out however that whereas teachers and professional people are generally aware of the potential and positive advantages to themselves of following the type of course offered by the Open University, this awareness is rarely found among ordinary workers. Experience with worker-students suggest that they must be sought out where they are, and shown the relevance of what such courses have to offer.

Earl MOUNTBATTEN of Burma, opening the University's headquarters in May 1970, said that he was alarmed by the small proportion of candidates for the mathematics and science foundation courses. So far twice as many applications are for social science and the humanities as for science and mathematics.

j) The Council for National Academic Award

The Robbins Committee has seen the need for an alternative degree system in whose administration the colleges could themselves participate-something they could not do in the case of the external degree system for the University of London which itself drafts syllabuses and examines students. The Council for National Academic Awards (CNAA) was established in September 1964 by Royal Charter and is empowered to award degrees and other academic distinctions, comparable in standard with awards granted and conferred by the universities, to students who satisfactorily complete approved courses of higher education in non-university establishments which do not have the power to award their own degrees. At present the Council awards the first degrees of BA and BSc, the higher degrees of MA and MSc and at the highest level, the research degrees of MPhil and PhD. These degrees are accepted for the purpose of student awards, and by the professional institutions, as being fully equivalent to a university degree of similar level.

For the academic year 1969-70 there were 9.190 students following CNAA degree courses at fifty colleges (including three in Scotland) which were providing a total of about 280 courses in fields ranging from accounting to urban and regional planning; and the first year enrolemnt total of 7,860 students was about a thousand more than the year before and three thousand more than the year before that. By the early 1970s the CNAA is likely to be awarding more degrees than any university in Britain, with the possible exception of the University of London.

There is an increasing tendency for polytechnics, existing or proposed, to discontinue London external degree courses in favor of CNAA courses; and some of them have already introduced CNAA courses in completely new fields. Compared with the external degree course (where the control of examinations and syllabuses and the power to develop a course to meet changing needs and circumstances are largely out of the hand of the colleges), the CNAA degree course offers considerable advantages to students and colleges alike. The colleges are allowed a wide measure of freedom which enables them to plan and develop their own courses , reflecting the needs of industry and commerce and the attributes and experience of their own staff, and also to examine their own students with the help of external examiners approved by the Council. It is the Council's policy both to encourage new approaches in traditional fields of study and to help establish courses in new subjects where a need is seen to exist.

A distingushing characteristic of most CNAA degree courses is their:

- vocational bias and
- close relevance to the contemporary needs of industry, commerce and the professions.

The majority of courses are sandwich courses.

CNAA courses have thus many features which distinguish them from traditional university courses: these stem partly from the different history of the colleges and partly from their close association with the needs of industry.

Some of the courses are inter-disciplinary, offering combinations of science and technology subjects with other disciplines as recommended by the Robbins report.

About three-quarters of the CNAA courses are sandwich courses with alternating periods spent in college and in industry. Students following sandwich courses may be either industry-based or college-based. The industry-based student is employed by a firm which has as the main responsibility for arranging his training in accordance with a programme agreed with the college. The college is responsible for arranging suitable industrial training for college-based students (and often finds this a difficult problem with women students). In all cases, courses are planned in consultation with firms and other interested organizations: in integrating teaching and practice they reflect the college's realistic attitude to the purpose of the course and provide the student with both valuable experience of the working environment and an opportunity to apply what he has learnt in college in the real situation. There are two basic patterns: the "thin" sandwich which consists of alternating periods of 6 months in college and 6 months in the firm over 4 years and "thick" or 2:1:1 scheme which consists of 2 years in college followed by one year of practical training followed by one year in college.

The Council has given priority to the consideration of full-time and sandwich courses but it attaches considerable importance also to part-time courses, particularly for mature students, mainly people in industry or serving teachers. There are currently 9 part-time courses, 7 leading to ordinary degrees in science and technigolical subjects. The standard is fully equivalent to that of other CNAA degrees.

Conclusion

Of the students now in full time higher education, about 52% are in universities, 30% in teacher training colleges, and 18% in the technical and other colleges (including the new polytechnics).

One of the main problems of the next ten years will be a rapidly increasing student demand for higher education. The latest statistical projections of the Department of Education and Science show a large increase in the 1970s and the 1980s in the numbers of school-leavers (and others) who will obtain appropriate qualifications for entry to higher education as compared with previously published projections. If assumptions similar to those embodied in the Robbins Report were applied to these revised projections the number of full-time places in higher education required in the mid-1970s and beyond would be some 40% higher than those recommended in the Robbins Report.(1) The obvious question is whether resources of manpower and money could be made available to provide for such an expansion of the universities, polytechnics and colleges of education in the light of competing claims for resources from other parts of the educational system and from other sectors as, for example, hospitals, and transport.(2)

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(1) In 1968-69 the total number of full time students in the 45 universities in the United Kingdom (34 in England, 8 in Scotland, 1 in Wales, and 2 in Northern Ireland) was 217,625 including 178,948 undergraduates , 38,415 post graduates and 267 in courses "not of university standard".

(2) The increase in Government Grant is from 4,3 million pounds in 1945-46 to 227 million in 1970-71. The figure of 227 million pounds comprise 187 million pounds recurrent grant for maintaining the work of the universities and 40 million pounds grant for provision of new buildings.
The greatly increased dependence of universities on both kinds of Governement grant has enhanced the importance of financial support derived from other sources, such as endowments (1.2per cent), donations and subscriptions (0.5 per cent), payments for research (11 per cent) and local authority grants (0.9 per cent). Fees declined from 8.1 per cent of the total income in 1964-65 to 7.4 per cent in 1967-68.

In May 1970, the vice-chancellors published their comments on the thirteen possible ways of cutting the cost of university expansion which had been informally put to them in September 1969 by the then Minister of State for Education and Science, Mrs. Shirley WILLIAMS. The vice-chancellor's message rejects most of Mrs. William's proposals. While the case is implicityly made for perhaps three or four new universities to accomodate an estimated short-fall of about 50,000 students over the 400,000 that the universities feel they will have room for by 1981/82.the vice-chancellors have been careful to leave the options to the Government, whether to build new universities, or to expand the existing colleges of education into liberal art colleges. Expansion of the universities to take 400,000 students in ten years' time would require an average growth rate of about 6% a year. The vice-chancellors recognize that "this would be well in excess of the likely growth of resources nationally and would thus imply a government decision to devote a higher proportion of the national product than hitherto to higher educational purposes". They add that such a decision is not only right, but inescapable in view of the growing demand for places.

It is clear that the measures which will have to be considered for dealing with this situation will include methods of selection for higher education; the more productive use of facilities and the scope for their joint use; the adoption of new forms of organization; the expansion of part time and correspondence courses; and variations in the present type and length of courses. This suggest that the future pattern of post secondary education will tend towards even greater diversity and variety than at present.

## 3) Federal Republic of Germany

### a) The Responsible organs

The Federal Republic of Germany is a federation of eleven Lander which have the legal quality of States (with a Prime Minister and various Ministries).

The responsibility for all kind of education rests entirely with the Lander. In 1969, the Constitution was however slightly changed as follows:

a) The Federal Government can now define certain basic principles for higher education by way of a federal frame law. These principles will bind Land legislation.

b) The Federal Government and the Lander can co-operate, by way of mutual agreement, in educational planning. (The Federal Government still has no power to force education concepts upon the Lander).

c) The Federal Government and the Lander can co-operate, by way of mutual agreement, in the financing of expansion and development of universities.

For this purpose two mixed Federation - Lander bodies were set up:

- A Standing Committee for Educational Planning;
- A Committee for University Development.

The other bodies are:

#### i) At federal level

The Federal Ministry of Education and Research which has very little responsibility in education. As far as research is concerned, this Ministry is responsible for promoting and financing research, but it has in general no control over research institutes (these mainly depend on the Lander).

#### ii) At Land level

A Ministry of Education and Research in each of the Lander.

A Standing Conference of the 11 Ministers of Education (and Research) with a Secretariat at Bonn (a sort of international organization en miniature). The conference holds plenary meetings and has three permanent committees: higher education, school education, adult education and culture.

#### iii) In between the two levels

Two advisory bodies composed of delegates from both levels and jointly financed by the Federation and the Lander:

- Bildungsrat (School Education Council)
- Wissenschaftsrat (Higher Education Council).

There are also research organizations jointly financed by the Federation and the Lander:

Max Planck Society with many institutes in all the Lander.
Deutsche Forschungsgemeinschaft (DFG-German Research Association), a sort of University Grants Committee.
The West German Rectors' Conference is an association of the (autonomous) german universities and Colleges of Education.

b) Present changes(1)

The year 1970 can perhaps be termed to be crucial for development of thought and projects for Higher Education in Germany. For a better understanding of the situation it is useful to keep in mind the following sequence of events.
1969 in May, at the time os the great coalition (CDU-CSU and SPD) amendments were introduced to the Constitution enabling the Federal Government to:

a) promulgate a Federal Frame Bill on general principles for Higher Education

b) extend its financial participation to the building of new Higher Education establishments and the development of existing establishments.

July 1st, creation of the Standing Committee for Educational Planning a mixed body composed of representatives of the Federal Government and the Lander.

In October, Professor Leussink, (then aged 57 with no political party alleageance) became Federal Minister of Education and Research (Bundesministerium fur Bildung und Wissenschaft) and accepted to try and find a basis for a new educational system which could be accepted by all political parties.

1970 on February 5, Minister Leussink published 14 points which he presented as a basis for further discussion on reform of higher education.

On February 13, the Educational Experts Committee of the German Council for Education (Deutscher Bildungsrat) published its "Structural Plan for School Education".

On May 20, at the occasion of their plenary session, the West German Rectors' Conference (Westdeutsche Rektorenkonferenz) (2) made public their reactions to the 14 points put forward by Minister Leussink.

On June 8, the Higher Education Council (Wissenschaftsrat) after several years preparation presented the Federal Chancellor Brandt with their "Recommendations for the structure and extension of Higher Education after 1970."

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(1) A large part of the information in this cocument was collected at a governmental course on Reform and Planning of Higher Education and Research in the Federal Republic of Germany (Bonn-Bad Godesberg, September 14-19, 1970) attended by leading educationalists responsible for educational planning in European countries.

(2) The West German Rectors' Conference is a association of the universities as institutions and not, like the British Committee of Vice Chancellors, just an association of the rectors as individuals.

On June 12, The Federal Government approved a 100 page "Report on Educational Planning" and submitted it to the Federal Parliament. The report put forward targets for an overall educational policy to be implemented in cooperation with the Lander through the "Standing Committee for Educational Planning."

On June 25, the Federal Chancellor and the eleven Heads of the German Lander signed an agreement on the establishing of the "Standing Committee for Educational Planning".(1) At the first meeting of this Committee which took place on July 1st the following decisions were taken:

-By May 1971, the first long-term education-plan and education-budget will be submitted. Two sub-committees to draft the plan and the budget respectively, were created.

-A sub-committee for educational innovation was established, which will in the first instance draft proposals for the organization and coordination of curriculum research and development. Furthermore, the sub-committee will submit to the Standing Committee, by October 1970, a draft agreement between the Federal and Lander Governments on the co-ordination and scientific evaluation of pilot experiments in schools and post-secondary institutions.

-A sub-committee for the promotion of fundamental research was set up which will in particular review the existing agreements on the grants to be allocated by the Federation and the Lander to the German Research Association, the Max Planck Society, the research priorities at the universities, etc....

-An ad hoc group was created by the German Ministers of Education to prepare a decision on the introduction of multi-media study systems.

At the beginning of July, the Ministers of Education of the Lander made known a detailed reaction to the structural plan of the Educational Experts Committee of the German Council for Education.

At the same time the Federal Ministry of Education and Research published its first draft of a Federal Frame Bill on Higher Education together with an explanatory memorandum. This draft was the subject of hearings in the second half of July (and onwards) to which experts from all organizations concerned were invited. It was expected that these hearings would lead to some amendments of the draft. Subsequently the Bill was to be:

i) in October submitted to Cabinet

ii) later on laid before the Federal Parliament.

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(1) The Composition and tasks of this Committee are laid out in Appendix A.

At the present stage the Bill is still in the making. It is clear that the bodies concerned will challenge certain parts of it. Nevertheless there seems to be a large consensus of opinion for several of the major aspects of the new legislation.

## c) From the "Fourteen Point" of Minister Leussink to the Frame Bill.

### i) The "Fourteen Points".

Most of the principles embodied in the Frame Bill were already in germ in the fourteen points published in February 1970 by the Federal Ministry of Education and Research as a discussion paper. It is therefore essential to go through the various proposals.

These propositions aimed at a radical change in the traditional Humboldtian concept of university which would be replaced by a diversified and comprehensive system, with an inbuilt mechanism for medium and long-term planning.
The first proposition states that the Frame Bill will be valid for all establishments of higher education, which under previous law, were designated universities, technical universities, colleges of education, colleges of art, music and sport, and advanced technical colleges (Fachhochshulen). These establishments will be designated Hochschulen. The law of the Lander and the statues of the establishments shall have to comply with the Bill.
The second proposition defines the tasks of the Hochschulen and adds to the traditional tasks the following:

- organization of refresher and promotion courses and participation in adult education,

- collaboration with the Federation and the Lander in higher education reform by experiments and pilot projects,

- promotion of international, and particularly European co-operation and of mobility by mutual recognition of examinations and degrees in higher education.

The third proposition states that Hochschulen shall co-operate regionally
- to create transfer possibilities for students and more flexible study courses and to improve guidance of students,

- to co-ordinate training programmes and research projects, launch joint programmes and projects, develop common growing points, and plan jointly their further development,

- to use jointly facilities and equipment and to promote the mobility of their staff.

The fifth proposition contains detailed regulations for the planning of higher education which shall involve three levels: each Hochschulen establishes its own development plan, each Land draws up an overall development plan for all its Hochschulen and the Federation co-ordinates these plans within a frame plan.

The plans of the Lander and the Federation shall detail the actual situation, the quantitative and structural targets and the necessary measures and means. There shall be medium-term and ten-year plans, to be readjusted annually.

The plan of each Land shall insure in particular that:

- higher education planning is integrated into general educational planning,

- the number of study places offered corresponds to the foreseeable social demand and manpower deman, and that an adequate number of foreign students can be admitted,

- higher education planning at the Land level is co-ordinated with financial and regional planning and with the national policy of growing points in training and research.

The sixth proposition states that state supervision by the Land, as a rule, shall be restricted to legal control of the measures taken by the Hochschulen to insure their conformity with the law. It can however be extended to a control of the adequacy of the measures taken to guarantee the implementation of the overall development plans and, as far as necessary, the uniformity of higher education.

Each Hochschule shall be autonomous in its administration and shall have a head elected for at least five years as a full-time post. He shall be responsible to the central collegiate body of the Hochschule in its totality (statutes, draft budgets, development plans, co-ordination of training and research programmes, recruiting policy, restrictions of student admission, etc..). The Hochschule shall be organised in departments which sall enjoy collegiate self-administration and shall be responsible in particular for study courses (curricula) student guidance, assessment of their personnel and financial resources and co-ordination of their research projects. Research organizations shall as a rule be integrated into a department, they can, however, also form central organizations of the Hochschule with a collegiate body of their own.

The seventh proposition states that all members of the Hochschule (which includes the students) shall have the right and the duty to participate in the self-administration according to the functions of each body and group. They shall be entitled to elect their representative by group and department provided that for any group at leat 10 per cent vote. The number of representatives can be decreased if less that 60 per cent of a group have cast their votes.

Voting can be restricted to responsible researchers if general issues of research are to be decided upon. Decisions on details of a research project are to be taken by the project leader.

The ninth proposition contains detailed regulations for admission which can be restricted by a Hochsule if the teaching capacity in a specific study course would otherwise be exceeded. Uniform national criteria shall be applied in assessing teaching capacity. The assessment on which a restriction is to be based must be submitted to the authorities of the Land, and its Ministry of Education has to approve any proposal to restrict admission. The approval shall be valid for one study year only.

If candidates have to be selected for admission, the criteria to be applied and to be supplemented by tests and interviews, shall be: relevant study achievement at school, time since application including military service, and special social conditions. candidates refused admission shall be informed fully of the reasons which led to the decision.

If a numerus clausus in a given study course exists for a majority of Hochschulen a central registration office shall insure that all existing study places are occupied.

It is stated in propositions 10-12 that a first degree shall as a rule be acquired after three years, in specific cases after five years, of study. Study years should replace semesters. New forms of study courses such as study units and remote studies for parts of the course, may be introduced. Curricula shall periodically be revised to insure that they correspond to scientific and professional developments. It shall be possible to establish alternative study courses.

Propositions 13-14 concern the future recruitment and career structure of Hochschulen. It is stated that "Habilitation" shall no longer be considered a prerequisite for a professorship.

The teaching and research staff shall in future be composed of three categories only: professors, "Assistenzprofessoren" (assistant professors), other civil servants and employees. Professors and assistant professors shall have equal rights and obligations, they shall be independant in teaching and research, and be entitled to sit on examination boards and to participate in the self-administration. They shall be elected to office, after the post has been put up for public competition- professors, as a rule, as life-long civil servants, assistant professors as civil servants for a period of six years.

The recruitment conditons for assistant professors are: a successfully completed higher education course, teaching experience and ability, and capability for research work proved, as a rule, by a doctoral thesis. The same conditions apply for the recruitment of professors, who furthermore shall have to provide proof of specific merits in training, research or practical work in their field.

In the "Report on Educational Planning" submitted by the Federal Government to the Federal Parliament it was stated that the "supreme objective is a democratic, efficient and flexible system of education, which is available to every citizen for his personal, professional and political education from pre-school to further education". The key note should be "the private advancement" of the individual and not planning according to the demands of the economy and society.

"In order to reach these objectives, the distinction between the various types of schools and forms of higher education must be removed. With the development of an overall differentiated system of comprehensive schools and comprehensive higher education establishments, a democratic and efficient system of education is to be created in the Federal Republic, as has been planned and established by many other democratic industrial nations."

This statment indicated clearly a breach with the trinominal school system of the educational hierarchy which was crowned by the university. In its place the Federal Report recommends that the "University of the Future" should "be developed into an integrated comprehensive university. Its capacity must be increased more that two-fold in the next ten years."

d) Trends and Tendencies:

The "fourteen points" were a challenge for discussion and it is understandable that all bodies concerned in Germany spared no efforts to comment upon them. The West German Rectors' Conference declared itself in favor of the principle of a comprehensive system of Higher Education and Research but made reservations regarding excess of planning at national level. For this body central reform subjects should be:

i) Mass problem and the structure of staffs.

ii) Co-participation and effeciency.

iii) Curricula reform and comprehensive university

iv) Planning facilities and autonomy.

v) The basic right to free choice of the career and the place of the training on the one hand and restricted admission to unisities on the other hand.

The Recommendations of the Higher Education Council for the Structure and Expansion of Higher Education after 1970 is an essential document. The report offers a comprehensive project for the reorganization of post secondary education during the next 10-12 years.

The point of departure is the rapid development of sciences. The report calls for a fundamental re-organization of the traditional university system in Germany. It states that the increased and diversified problems in teaching and research can only be solved by comprehensive universities which are substantially differentiated and integrated through this organization.

These comprehensive universities are intended to offer study courses which so far could only be followed outside university, at institutions such as teacher's colleges and schools and technical colleges for engineers.

Public opinion must be brought to accept short study courses. These studies should be practical and lead to a career. Industry should be induced to accept people who have a diploma for a short cycle.

The Report thus stresses the two following principles:
- The restructuration of Higher Education must guarantee the free development of research and broaden the access to a research-based training.

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- It is necessary to reorganize the universities radically to provide post-secondary and recurrent education according to the abilities and interests of growing student populations.

The integrated comprehensive university, is the pivot of the reform. The teacher training colleges and the other colleges (engineering, economics, etc..) should be merged into these new universities which would offer a variety of courses ranging from two to three year courses, to the traditional academic courses of longer duration and finally to post-graduate courses. The staff should in future comprise only three categories: professors, assistant professors, with a limited tenure of office, and employees for research, medical services and technical functions.

The reform of curricula and examinations is considered to be one of the main tasks of the reform. The Higher Education Council proposes the creation of working parties of professors and representatives of the professions, for each subject field, to draft the new curricula which should prepare for fields of activity. Multi-media systems should be widely applied in the new study courses. All first degrees should have the same designation, namely diploma.

By 1980, according to the Council's estimates, 25 to 30% of an age group will study at comprehensive universities. This will amount to a total student population of approximately one million.

The Higher Education Council links its quantitative expectations with a new conception of study courses and the corresponding professions. According to this, everywhere where training aims permit, study courses are to be offered which guarantee final examinations after two and a half to three years. Such courses are to absorb 15 to 18% of a year group whilst 5 to 6% are to take on the average of a four years teachers' course and 5 to 6% a four to six years' course of study. For particularly qualified graduates of a first course of study, a further three year continuation course is foreseen. Here the Higher Education Council reckons on two to three per cent of a year group. The quantitative expansion is consequently almost exclusively within the short study courses.

To make provision for the projected number of students out to improve the conditions, the Higher Education Council demands an increase in comprehensive university staffing from around 47,000 in 1969 to between 95,000 and 109,000 by 1980. To accomodate the students on extension of the existing universities is required on the one hand, and in addititon, the Higher Education Council considers necessary the establishment of thirty new comprehensive universities. In so doing, several comprehensive universities with a maximum population in each case of 25,000 students should be erected partly in major cities (thus in Hamburg and Frankfurt where hitherto there has been a university, partly medium-sized towns and even smaller places (such as Bayreuth or Oldenburg), where the comprehensive universities will call for a smaller number of students. The capital investment, at current prices, for the new universities is estimated at 40,000 million marks, whereas current expenditure is expected to treble.

This demand appears even more impressive compared with the public budget. Whereas the federal government, the Lander and local authorities spent 11% of the total national budget in 1969, it will have to be 21 to 24% by 1980.

e) Points and Issues:

The three following points clearly emerge from an analysis of the Frame Bill:

i) The Comprehensive system,

ii) Curricula Reform (units-credit)

iii) Democratisation

The text of the Frame Bill is clear on the first two points which are genuine university problems.

A distinction must be made for the third point. The Frame Bill can be seen under the aspect of a university reform. It must also be looked at in a political light.

Up till 1968 the Student unrest in Germany was directed against the strong hierarchical university structure. Since then, university issues play hardly any role at all. Revolt is no more directed against University but against Society.

This raises an essential issue and explains the interest aroused by the Frame Bill. University has become a target. The most advanced elements claim that they are fighting to "liberate" the university. The latter would thus become a plateform enjoying some kind exteritorial privilege (like the church in the medieval age) from whence could start a revolutionary action to "liberate" Society as a whole. Society, and not the University, is the ultimate goal.

Without going to such extremes it must be admitted that the Frame Bill is part of a political programme of social democratisation of Society as a whole of which the University is a componant part. The old University of Humbolt, with its strong hierarchical structure, reflected the "bourgeois" attitude of the time towards life in the same way as the Napoleonic university reflected the will of its founder for centralization and authority. The present law considers as a fact that the university has not adapted itself to the new conditions it has created. The law therefore aims at restauring the university to its proper function of close inter-relationship with life as was the case of German (and other European) universities in the medieval age.

There is a contradiction in the present system in which universities prepare both for a liberal education (Social demand) where no degree should be necessary, and for specific jobs, (Man Power demand) where degrees are required. Questions such as "How far is university education to be considered as a capital investment and how far as a consumer's good, fulfilling the student's desire for an educational-cultural experience", are the basis of the problem. If university education is to be a capital investment then we may ask ourselves if we really need a "university" as a separate institute.

The word becomes confusing and should rather be limited to centers specialized in research work. The Problem of "manpower demand" is, in fact, a very difficult one to solve. There is first great difficulty in forecasting such demands since the out put of the educational system by changing the demand alters the forecast. Then the needs of industry for qualified engineers is greater than those for university graduates.

Closely connected with university reform there is a social Reform. Comprehensive universities have been planned so that questions of prestige should play as smalla part as possible: cycles of studies, whether short or long will cover the same title of "Diplom".

It is a fact that a university degree still confers a notion of individual prestige. The Frame Bill can thus be considered as a weapon to fight against the privileges attached to a university title. Academic degrees, it is claimed, don't give any idea of the personal qualifications. The new "diploma" which is to be conferred would become a sort of information document listing courses followed. This change is probably one which will call for social resistence.

As a consequence of the reactions to the Frame Bill, the unrest has gained the University teachers.

In addition to the student movement, which has in some places dwindled in the meantime to isolated actions tinged with anarchy, has emerged the no less disturbing protests from the younger university teachers. It is borne by the assistants i.e. by the greater part of the university teachers. The representatives of the students as well as the West German Rectors' Conference have declared their solidarity to a great extent with the protest.

This emancipation process of the German assistants, promoted by the determined and constructive attitude to reform on the part of the Federal Assistants' Conference (Bundesassistentenkonferenz - BAK) founded in 1968, has led to an ever-improving position for assistants in the student society and in particular in the collegiate management and executive bodies of the university. The first full-time university presidents to hold office in Berlin and Hamburg are assistants, elected by the concentrated voting power of colleagues and students in opposition to the outnumbered professors.

The question of democratisation of the university is fundamental. A university where teaching, research and administration is baded upon the consensus of all groups runs the risk to serve none properly. Participation of all members of the University in its administration does not always correspond to the needs of Society. The principle of a university is to serve the whole of Society which pays for its maintenance.(1) Society and industry, as future employers, must therefore have a say in matters of curricula and examination. University is not a Parliament run by a majority vote. This news is held by a number of university members including students. 2000 of these have recently created a "Notgemeinschaft Freiheit der Wissenschaft" (Society for freedom of Research) to ficht too much democratization and stress the necessity for a qualitative and humanistic value of Higher Education as compared to quantitative aspects. Such action can be also connected with the recent creation of an "International Committee SAVE THE UNIVERSITY" which groups 104 scholars from five countries in Europe including seven Nobel Prize winners. Amoung German supporters is Professor Richard Lowenthal (holder of a chair for Poltitical Sciences at Berlin University). This committee has published a memorendum to defend the quality of teaching and research which points out that "from Berkeley to Berlin, academic performance and results are unfortunately more and more evaluated and assessed according to political criteria".

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(1) This principle also applies to the autonomy of universities. If the major part of the financing comes from the State, obviously the State will claim the right to control expenditure.

Another political aspect of the problem is the division of the country in Lander and the independence of these Lander from federal control in many educational matters. There is a constant struggle between the Lander and the Federal State for control over universities. The new Frame Bill and the financial implications will rather lead to reenforce the central authority of the Federal Government and put pressure on the Lander to overrule them. As things stand at present, several Lander have already applied new University legislation without waiting for the voting of the Frame Bill. (Berlin law, Hamburg, Hesse, North-Rhine Westphalia, Bavaria, Baden Wurtenberg). Most of these laws are as drastic as the Frame Bill, basing the whole University on the democratic consensus of its groups. It may well be that some of these legislations turn out to be in contradiction with the Frame Bill and will thus no longer be valid when the Federal Law comes into force.

Appendix A

The work of the standing Committee will be based on the three major reform plans recently issued: the Education Report of the Federal Government and the Recommendations of the School Education Council and the Higher Education Council. The Standing Committee's statutory basis is the agreement between the Federation and the Lander which was signed at Bonn by the Federal Chancellor and the Prime Ministers of the Lander at the end of June. 1970, the aggrement it it as in article 2 that the Standing Committee will have the following eight tasks:

- to prepare a long-term frame plan of the Federation and the Lander for the coherent development of the entire educational system.

- to prepare medium-term plans for the implementation of the objectives of the frame plan.

- to issue recommendations on the co-ordination of Federal or Lander plans ready for implementation.

- to prepare emergency programmes.

- to elaborate the financial estimates for the implementation of those plans and programmes and to make proposals for the necessary allocations by the Federation and the Lander.

- to revise and carry on continuously the plans after they have been approved by the Federal and Lander Governments.

- to propose pilot projects in the field of educational research and planning.

- to promote the exchange of experience on educational planning at the international level.

As to the promotion of fundamental research, the Standing Committee will, under article 3, be responsible for preparing long-term frame plans of the Federation and the Lander, proposing emergency programmes, assessing the financial needs and revising and carrying on the plans and programmes approved. Furthermore, article 4 gives the Standing Committee the task of elaborating proposals for creating and developing national information system for education and research promotion.

Article 6 stipulates that in its work the Standing Committee will take into consideration the national research, finance and societal policy, the recommendations of the School Education and Higher Education Councils and the opinions of the Conference of Lander Ministers of Education.

The Standing Committee is composed of Ministers, Deputy Ministers or Parliamentary State Secretaries of the Federal and Lander Governments; representatives of the Federation and of the eleven Lander each carrying eleven votes.

Decisions are taken by a three-quarter majority (Art. 7). The chairmanship alternates annually between the Federal and the Lander sides (Art. 8).

The recommendations of the Standing Committee are submitted for deliberation and decision to the Heads of the Federal and Lander Governments. Their decisions are also taken by a three-quarter majority, but only those who have agreed are bound by the decisions (Art. 9).

The secretariat of the Standing Committee with an initial staff of 22 has been established in the Office of the President of the Federation.

Appendix B

Higher Education Frame Bill (first draft)

The draft is in two main parts, the first of which contains rules for the legislation of the Lander which continues to be responsible for all universities and other institutions of higher education, whereas the second part comprises those stipulations which are to become national law. Main elements of the draft are:

**The comprehensive university.** Each Land shall transform its "Hochschulen" universities, colleges of education, colleges of art, music, sport, and the technical colleges into comprehensive universities (Gesamthochschulen) which, in Article 4, are defined as "institutions of higher education which combine research, instruction and study and offer within the same subject field various study courses differentiated according to study aim, content, duration and graduation". The time limit for this transformation is six years at the latest: the Lander must comply with the Frame Bill within three years and establish the comprehensive universities within a further three years (Art. 44 and 45). In the meantime the Frame Bill will be applied to all institutions recognized by the legislation of a Land as 'Hochschulen' (universities).

**Overall planning:** Each university will establish a development plan covering a period of several years and each Land a similar overall plan for its universities on the basis of the development plans. The plans of the Lander will be co-ordinated under a Federal Plan (Art. 9 and 10).

**Participation in decision making.** All members of the university have the right and the duty to participate in the self administration of the university in accordance with their own functions in the university and the tasks of the administrative bodies concerned. The draft distinguishes between five categories of members: the Head (s) of the university, the university teachers, the students, the scientific collaborators, and all other staff. A member group can be represented on a university body only if at least 10% have participated in the election of its representatives. Decisions of the execution of research projects are taken by all scientific collaborators sitting in the respective body (Art. 12 to 16).

**Administration of the university.** Each university will have a president (or a presidential member in the supreme university body) elected to serve full-time for at least five years. Central collegiate bodies will decide on the statute, the draft budget, the development plan, the co-ordination of research and study programmes and their priorities, restriction of admissions, etc.. Furthermore there will be collegiate bodies within the departments which are to replace the traditional faculties. These bodies will be responsible for supervising the study programmes, study courses and examinations and the research projects in the department's subject field (Art. 17 to 21). The draft contains only general guide lines for the reform of study and examination systems which are regarded as a university matter and have so far been co-ordinated by regualar meetings of the deans of faculties. The draft stipulates, however, that shorter courses of three-year duration leading to a first degree should be offered wherever possible (Art. 22 to 30).

**The university staff:** The draft proposes a uniform staff organization for all universities (including the present colleges). In future there will be only three categories of staff: the university teachers i.e. professors and assistant professors, the scientific collaborators and the tutors. Students who should have written an above-average doctoral thesis and have proven teaching ability will be called to office as assistant professors for a six-year's tenure and out of their ranks the professors will be selected.

'Habilitation' is no more a precondition for becoming a university teacher. The present assistants who bear a heavy share of the university's teaching load are to disapper. This uniform staff organization, the memorandum stresses, will facilitate the development towards comprehensive universities. (Art. 31 to 43).

The second part of the draft which would enter into force as soon as the Frame Bill is passed, contains two main provisions. Restrictions of admission can only be set up for a one-year period and need to be approved by the Education Ministry of the Land concerned. Furthermore, provisions are made for the co-operation of neighboring universities in a geographical region: such universities can form a regional unit with joint administrative bodies to deal particularly with study and examination matters.

## Appendix C The University of the Ruhr (1)

### a) Introduction

The University of the Ruhr is a good example of one of the new German universities. The decision to set it up was taken by the Landtag of the State of North Rhine Westphalia, on July 18th, 1961, that is, before any scheme for a comprehensive higher education system was applicable. The University of the Ruhr is therefore conceived as a traditional campus university despite a certain number of new principles which played a leading part in its creation and is not likely to be finished before the new legislation on comprehensive higher education is passed. This means it will have to be adapted so that we can now witness a "University in the making".

The University is situated in the center of the highly industrialised Ruhr district, the most congested area in Germany with almost six million inhabitants living in towns and such great cities as Dusseldorf and Dortmund and producing in recent years nearly a third of the gross national product of the Federal Republic of Germany. The thousand acres on which the university is built are in the neighborhood of the city of Bochum.

Before the coming of the new University there were no universities at all in this area and the percentage of successful A-level candidate and students barely reached the half-way mark to overall Federal levels.

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(1) This document is based on information collected during:
- a) a seminar on Reform and Planning of Higher Education and Research in the Federal Republic of Germany (Bonn-Bad Godesberg, Karl-Arnold-Bildungstatte, September 14-19, 1970);
- b) and a visit of the participants to the University of the Ruhr (September 18,1970)

## b)Basic Principle

The outstanding features of the initial plan were the multilateral interdependance of the scientific disciplines, the establishment of geral institutes and the incorporation of the engineering sciences.

In the "Recommendations concerning the structure of Bochum University" as submitted on December 3rd, 1962 by the Foundation Committee, the traditional faculties were replaced by 19 smaller departments with a more closely knit internal and functional structure. There were also to be many links between these departments by means of, for example, interdepartmental institutes. This principle was based on the assumption that these links can be established more naturally, closely and flexibly between departments constituting genuine scientific units than between faculties which are based on mere traditional groupings or accumlations of subjects. The departments were grouped in the following four institute buildings: Humanities, Natural Sciences, Medecine and Engineerings (Applied Sciences).

## c) The Buildings

The Foundation Committee recommended that the underlying principle of inter-departmental co-operation should be reflected in the homogeneous construction and layout of the University. The institutions and the organizations of the entire university were to be concentrated on one site and physically interconnected. The buildings thus consist of fourteen blocks identical in appearence and symmetrically grouped around a center containing the main lecture halls, refectories etc... This principle was to apply to both research and teaching. The new university was to appear as a unified whole to the students, completely open to them for their scientific work and professional guidance, as well as for their personal contacts and the pursuance of private interests. Fifteen minutes was considered to be the maximum time which any student should have to spend getting from one end of the site to the other to attend a lecture.

The whole university was designed and planned accordingly on these lines. Excavation work for the first institute buildings was begun on January 2nd, 1964, and the final completion is scheduled for 1974.

Great care has been taken to set the university in proper surroundings. All movement within the university area will be on foot. Large parking places have been laid out on the periphery of the university site. The university itself will be connected by a motorway with the main routes of the Ruhr insuring easy access by car.

But the most original idea from the town and country planning point of view is to create closer links between the University and the neighboring community. The university is situated in the midst of a forest which is used for recreational punposes by the people of Bochum; it is sited in such a way that the local population will have to walk right through the university grounds to reach the recreational area and thus grow accustom of witnessing university life.

In order to bring the outside world even more into the university, the planners have designed a miniature city (connected by covered pathways to the university) containing shops, social entertainment facilities, etc...The university will be equivalent in size to a town of 60,000 inhabitants.

Eighteen months after the beginning of the excavation works, the official inauguration of the Ruhr University took place one June 30th, 1965 and the first two buildings were opened. On November 2nd of the same year, lectures were given in eight arts departments to 1215 students. In the summer of 1966, 2821 students were registered. In the winter semester 1966/67, the figure rose to 4,259 and in the 1967 summer semester, to 4,710. The economic recession which developed in the Federal Republic of Germany in 1967 had at least one advantage: government money was made more easily available for public works. The Ruhr University benefited from this situation and the work was accelerated. In the winter semester 1967/68, the third institute building of the Engineering series was completed. One year later there followed the first building of the Natural Sciences series and, shortly afterwards, the last two buildings of the Natural Sciences series and the first building of the Medical series. Since the winter semester 1969-70 it has been possible to hold lectures on all subjects. The "academic adventure" of Bochum has now become a reality. The total cost of the buildings, over ten years, is estimated at 1,500 million DM.

### d) The constitution

Long before the buildings were completed, the University of the Ruhr adopted on June 25, 1969, a constitution which embodies such new principles as the active participation of various members of the university community in the administration of the university. On several points it is in conflict with the framework law of North Rhine Westphalia, as the State Minister of Science and Research himself has pointed out. But although the University is to some extent illegal, no action is likely to be taken on these grounds in the near future since the Federal Government itself is preparing a Federal Law on general principles of higher education, providing among other things for a comprehensive system of higher education. (Gesamthochschule) The constitution of the Ruhr University is thus likely to be at the same time ultramodern and yet too moderate. When the Federal Law comes into force the constitution of the university may well have to be adapted. For the time being it is operating on an experimental basis.

The constitution provides for the setting up of the following bodies:

#### i) The Parliament

The Parliament is composed of four representatives of each of the 19 Departments. The representatives of each department must belong to the following categories, one for each category:

Professors

Assistants

Students

technical non-scientific personel.

The President of the Parliament is elected. He can belong to any of the four categories of members. In 1970 he was an assistant.

The Parliaments elects among its members three specialized committees to deal with:

Finance, Budget and Planning

Research

Teaching.

These committees have no power of decision. They can only make proposals to the Parliament and prepare decisions for this body. The composition of each committee varies but would normally be:

2 members of the Senior teaching staff

2 assistants

2 students

2 technical, non-scientific members of staff

1 Deputy Recor

9 members.

Each committee has its specialized function. The Research Committee, for instance, coordinates research projects. The three committees cooperate with government administrative departments. They together establish the budget estimates, one of the advantage of this system being that academic members and staff responsible for administration meet together on matters of income and expenditure.

ii) Senate

The Senate is composed of the heads or deans of the 19 Departments, the Rector, the Deputy Rectors, and the Chancellor. The Rector of the University is President of the Senate but - like his Deputies and the Chancellor - has no right of vote. The following affairs are submitted to the Senate for approval:

- decisions of Parliament which require Ministry of Education approval;
- the budget estimates;
- Department proposals for the appointment of teachers;

- proposals for the creation, modification or abolition of Departments and other University institutions.

Should the Senate find it cannot approve rules adopted by the Parliament, the matter is submitted to a mediation committee for a compromise solution. The final decision rests with the Parliament but requires a 2/3 majority.

iii) Rectorate

The Parliament and the Senate are the two bodies representing the legislative organs of the University. The executive authority is composed of a body of five persons:

the Rector

three Deputy Rectors (Pro-rectors)

the Chancellor.

The Rector is elected by the Parliament for a two-year term of office. He in turn proposes to Parliament the name of three Deputy Rectors, each to serve a two-year term as:

a member of the Rectorate (deputy rector)

chairman of one of the three committees of the Parliament.

iv) Departments

Each of the 19 Departments has a separate kind of organization. The Head of the Department is a Dean. All Departments have a Council or Assembly composed of representatives of the following three groups: Professors, Assistants and Students thus establishing a good team work at that level.

v) General considerations

The main problem of the University of the Ruhr, as in most other universities, is the attitude of students. Participation of students at a first election which took place in November 1969 (under an older constitution) was only 50%. Students as a whole seem to fear that by taking a more active part in the system they will in some way be giving support to the establishment and deprive themselves of the right to criticise or even abolish it. The views of the students are expressed in their open student parliament which is a private internal body, not part of the constitution. It is also worth pointing out that the teaching staff are on the whole, younger than in other German universities. Also the average length of courses is shorter than in other universities.

Nevertheless despite any appearance to the contrary the University of the Ruhr is a very bold attempt to solve contemporary problems. Its main characteristics is certainly the official recognition of participation of all members of the community in the policy-making bodies. In this respect it might be regretted that there are no representatives of the local community in the governing bodies of the University.

Another feature, closely linked with the previous one, is the effort to bring the University close to the community and to active life. The University ceases to be an ivory tower and is to become a component part of the life of the community. This is a new outlook.

A third characteristic is the democratization of access which in turn leads to a democratization of the running of the University of Bochum as a whole. Only the future will show to what extent the University will be successful in mobilising the dormant educational reserves of the people of the Ruhr district. It can already be considered as a success that, during the period 1968-69, 13 to 13,52% of the students of the Ruhr University came from working-class families. The figure has risen since then to about 15% as compared to 5 to 7% in other German universities.

Like all new attempts to solve problems, the University has met with difficulties. One of the greatest appears to be the number of students. The buildings had been planned (rather generously let it be said) to accomodate and give maximum chances to 10,000 students. In 1970 there were already 11,000 students at a time when only 40% of the capacity of the University was available. It is expected that the figure will rise to 18 - 20,000 (or even more), which means that the number of students will have doubled while the buildings remain the same. It is likely that the staff will not follow the progression of the students. The danger, of course, is that this increase in the number of students might turn the university into a huge factory mass -producing trained brains.

## 4) Scandinavian Countries

### a) Sweden

#### i) Introduction

The Swedish educational system, which is run almost exclusively by the state or local authorities is based on the three following principles:

- Equal opportunities for all: every attempt has been made to eliminate geographical, economic, cultural or social obstacles (as well as discrimination between the sexes) in order that all young people should get a chance of obtaining the education for which they are suited. University teaching is free of charge. A special system of study grants exists for the purpose of higher education.

- Upbringing in a democratic spirit.

- Flexibility

  Those still at school must be able to change the direction of their studies without major difficulty. Any Swedish citizen must be able to improve and supplement his knowledge, subsequent to his initial education. No one must risk being excluded for ever from the possibility of further education.

The Swedish system of higher education (post-secondary educational system) is made up of the traditional university-level institutions. Among these are five universities, two institutes of technology, two independent schools of commerce, and one independent school of medicine and dentistry. The universities have faculties of arts, social sciences, law, theology, mathematics and natural sciences, medicine and dentistry.

All of these institutions except one school of commerce are state institutions and are financed by the yearly government budget. The grant for higher education and research amounts in 1970/71 to Skr 1,045 million, i.e. approx. 2.6% of Sweden's national budget.

As a central authority for the above-mentioned institutions, a government office, (the Office of the Chancellor of Swedish Universities) is responsible to the Ministry of Education. This office is organized in five Departments: Planning, Training, Educational Planning and Research, Administration and Organization, Management and Auditing. Representatives of commercial and industrial life, professional organizations, administration, teachers and students, etc., are associated to the Office by the Faculty Planning Boards which among other things have to give their opinions on the university budget requests. The Chancellor of the Swedish universities is chairman of the board of U.K.A. All members of the board are elected by the government. Among the members are the chairmen of the Faculty Planning Boards, representatives of different professional organizations and the students.

The Chancellor's Office is responsible for the overall planning of the development of the Swedish university system. It is also responsible for the planning of the educational content of the different courses of study. An important task is to insure that the universities provide education of equal standard.

ii) The Educational Committee (U. 68)
"Sandgren committee" (1)

In April 1968 a special committee was established to consider the problems of reform of post-secondary education with regard to diversification and integration of establishments to provide 'permanent education' in Sweden in the 1970s. This Committee is generally known as U.68.

The principal reason why the Swedish government appointed a committee to investigate the traditional university system and to prepare a reform programme was that the universities were becoming increasingly overcrowded. (During the sixties the number of university enrolments more than trebled, rising from some 35,000 to approximately 125,000 at present).

In addition to the Committee itself, (which consists of the Under-Secretary of Eudcation,Mr. L. SANDGREN, as Chairman, the Directors of the National Board of Education and of the National Board of Labour, and the Chancellor of the universities) three advisory groups have been set up representing the Swedish political parties, the educational establishment (including representatives of the students), and a number of groups within the labour market.

The terms of reference of U. 68 are to

- assess the overall number of students and their distribution over various sectors of higher education in the foreseeable future;
- examine and make proposals concerning the organization of post-secondary education;
- plan the geographical location of post-secondary establishments.

The work of U.68 can be looked upon as divided into three phases.

- Major studies related to quantitative planning and to certain mechanisms in the educational system and on the labour market.

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(1) Much of this section is taken from "A background document on the 1968 Educational Committee (U.68). An outline of its work prepared in autumn 1969 by the Swedish Ministry of Education for the committee on Higher Education and Research of the Council of Europe".

- Theoretical analysis of major policy questions. The result of this preliminary analysis has been published for public debate in order to guide the commission in its final work.

- Policy work on quantitative planning, organization and location of post-secondary education.

The first phase includes the year of 1969, the second phase was terminated in summer 1969 and the third phase started in autumn 1969. The work of the committee was, according to present plans, to continue in 1970 and be completed as soon as possible thereafter.

Under the Committee's work programme an attempt has been made to formulate a preliminary definition of the post-secondary field of education. The requirement of a well-balanced expansion of post-secondary education seems to imply that it should include not only the universities and the traditional colleges of business administration, engineering and technological subjects, medicine, etc. (known in Sweden as "hogskola"), but all kinds of education that should in future serve as alternatives to the traditional university education. Any solution of the problems of post-secondary education is bound to affect secondary education. U.68 will threfore have to make proposals for such changes within the upper secondary schools (gymnasium, continuation school and vocational school) as may be considered necessary to achieve a sound development of the educational system as a whole.

The work of U.68 is co-ordinated with that of other committees of the Ministry of Education. Of particular importance is the Committee on Admission to Higher Education (kompetensutredningen, KU) which was established in 1965. Of obvious interest to U.68 is also the Committee on Economic Study Support for Adults (Kommitten for Studiestod at Vuxna, SVUX).

U.68 has undertaken five major studies relating to the planning in which it is engaged, namely:

- calculations of the individual demand for higher education under various assumed conditons (study S 1);

- estimates of future manpower demand for highly qualified personnel (study A 1);

- factors determining the choice of education and profession by students at various educational levels (study S 2);

- adaptation mechanisms within the labor market, related to the structure of the educational system (study A 2);

- consequences of investment in education ( study E).

Study S 1 deals with the individual demand for education by introducing various assumptions on transition coefficients from secondary to post-secondary education, as regards admission regulations and the volume of post-secondary education of adults. The calculations performed on automatic computers show the consequences on the educational structure of the labor market of the various assumptions made.

Study A 1 is concerned with an estimate of the educational structure of the manpower demand over the coming decade. The intention is to draw conclusions from comparisons between the results of this project and of S 1. The estimates are made in three steps.

The first one uses expert judgment on the development of the various branches of the Swedish economy. This work is done within the framework of the overall planning of the Ministry of Finance.

Step two is a trend extrapolation of the professional structure on the basis of the estimates made in the first step.

In the third step expert judgement will be used in order to estimate the changes in the educational structure within various professional groups.

The major hypotheses of S 2 is that choice of education and profession is not a single event but a series of consecutive choices made during the whole passage of the student through the educationa system. thus choices of young people are studied in grades 6, 9, 11 and 12 of the school system and at the university. Survey and interview methods are used on groups of students that were studied in a similar way earlier in the 1960s. This follow-up study may thus provide indications of the effects of recent educational reform in various respects, and on the gradual development of the individuals concerned. The studies concentrate on economic and social variables. A 2 is concerned with the way in which the output of and the demand for manpower with higher education interrelate . This question is looked upon from the point of view of the individual (mobility) and the employers (substitution). What are the mobility patterns of highly qualified personnel and how are they related to education? What is the reaction of the employer of a surplus (or a shortage) situation of people with adequate education and how does the employer change his attitude or behavior when the contents of the education of the recently employed persons change?

Study E is intended to show the consequences of social investment in education. The rate of return of investment in various educational sectors and at different levels is studied and an attempt made to describe the effects of such investment on income distribution. Due to the relative difficulty of getting the necessary data, this study will in some parts be rather an initiator of future work than a complete investigation.

## Analysis of policy questions

In the last few years there has been extensive interest in the function and aims of the Swedish universities. One of the first tasks of U 68, therefore, was to make an analysis of the goals of education in general and more particularly of post-secondary education. The work of the Committee on this question followed two main lines. A pamphlet has already been issued which analyses the goals of higher education and which also serves the purpose of inciting general debate on the matter. In 1970 the Commission plans to complete its formulation of these goals for its final report.

The pamphlet contains a general discussion where the overall goals of education are connected with on the one hand the goals of society, on the other the goals of particular units of the educational system. Starting from the objectives of the nine-year compulsory school and the upper secondary school,the committee analyses the relevance for post-secondary education of these goals. The headings of this discussion are the following:

- Development of the personality
- Ability of communication
- Preparations for special purposes
- Common frame of reference
- Habits of study and work

A question of primary interest in the Swedish educational debate during the late 1960s has been the possible need of a _numerus clausus_ at the university faculties of liberal arts, social sciences and natural sciences. In consequence this was from the outset considered an important objective for the deliberations of U 68. In considering this question, the committee soon found that limited intake, being just one of a series of factors that influence the flow of students through the educational system, must be considered together with all those factors in more total analysis. An attempt of a systems analysis of this kind has been published for general debate in a booklet "Higher Education - its function and its structure".

In this second pamphlet the first chapter is devoted to a discussion of the faculties of arts and sciences, their enrolment and the manpower demand of personnel with such education. In the second chapter the steering factors of the educational system are economic, social and regional factors outside the system determining the student's choice of education, and factors inside the system, such as admission rules, differentiation, etc. The central significance of resource limitations is pointed out in the third chapter. The competition for resources between education for youth and for adults is used as a point of departure for the outline of a system of recurrent education.

In the recurrent education model, the essential feature is the interplay between education, work and other activities through the whole span of life. The analysis of U 68 tends to the conclusion that normally the first work period should follow immediately upon the secondary school. Thus the whole structure of post-secondary education would be based on the principle of recurrent education.

## Policy work

The third phases of the committee's work concerns the proposals on policy questions related to student numbers, and to the organization and location of post-secondary education. The problem of student numbers can be tackled only after the completion of the investigations outlined above under the first, "major studies". For dealing with questions concerning organizations and location the committee has formed three expert groups:

- one for the organization of post-secondary education;
- one for certain aspects on the organization of upper secondary education;
- and one for location problems.

The terms of reference of the group on post-secondary organization state that the aim of the work is to find an organization which is more uniform and easy to survey. A greater coherence of the organization and improved possibilities of combining various types of education are the means by which swiftly changing demands from individuals and from society will be met. The long term planning will also be facilitated in this way. The key words are comprehensiveness and diversification.

The task of the Committee on Admission to higher education is to report on the requirements which are thought to be necessary for admission to post-secondary education. Hitherto, the Committee has concentrated its work on "philosophical faculties" (arts, social sciences and mathematics-natural sciences) at the universities. It has recommended a large number of relaxations in the restrictions regulating university entrance. For a three-year trial period, people who have at least five years of occupational experience and who are 25 years of age will be admitted for the study of a number of university subjects, provided only that they have fulfilled the requirements for that particular subject. This means that in this case the general requirements have been abolished.

At the beginning of 1970 the Committee also suggested that a number of students who do not fulfil the present general requirements (e.g. nurses) will be admitted to the medical schools. This means that it can reasonably be expected that the Committee in its final report, which is due in 1970, will also recommend considerable relaxations for admittance to faculties of technology. Probably fairly wide industrial experience, or training as a skilled worker, can constitute some of the qualifications which will open the way to engineering education for those who, today, are not permitted to enter the technological institutes (except in very special circumstances). The aim of official policy on this point is that all requirements which are not absolutely necessary be abolished.

The group on secondary school problems will consider manily two questions.

On stems from the work of the committee on admission to higher education, which is expected to result in rules by which admission to higher education may be obtained not only through the gymnàsium branch of the secondary school (as has up till now with few exceptions been the rule) but through vocational lines of the secondary school as well. The new admission rules will change the role played by the gymnasium as a quantitative regulator of post-secondary education.

The other question concerns the consequences for secondary education of a system in which post-secondary is organized as recurrent education. This might imply that all secondary school students must be prepared for a period of professional work before further post-secondary education, and that students in the vocational school must prepare for future studies as well.

In questions regarding location of post-secondary education, the work will be directed by the following guidelines. Location must take into consideration the:

- geographical distribution of individuals wanting higher education;
- geographical distribution of employers wanting personnel with higher education;
- contact between education and research;
- need for a suitable integration of the educational milieu in society.

The vast areas of sparse population in some parts of Sweden, particularly in the northern region, in general make location problems central political questions. Thus the location of education will be looked upon in a more general framework of policies for the distribution of industry and of other social services, etc.

### iii) Study reforms in operation

The first study reform was introduced in March 1969 by the Swedish Parliament and concerned the faculties of liberal arts, social sciences, mathematics, and natural sciences at the universities. It applied to all students enrolled after May 1st, 1969. These study reforms are now in their sixth month of operation, and accordin to the Chancellor of the universities, Mr. Hans LOWBEER, are working fairly smothly.

The main features of the new reform program are the following:

- Education within the faculties of arts and sciences should be organized on the principle of successive choice. The newly enrolled undergraduate has the choice of a number of first-year subjects, each of which limits his choice to a given sector. The number of subjects read during the first year will depend on the detailed structure of the successive choice system, but should amount to at least 15. Which of the subjects within the chosen sector he wishes to continue with, he decides after the first half year or year of study. The choice of the third year's studies is entirely free. However, the most goal-directed courses, e.g. for psychologists, will have a fixed curriculum throughout.
- The first year courses consist of subjects which both pedagogically and methodologically should come first in the curriculum, although they lead on to other subjects.
- An undergraduate who has a goal which cannot be realized through any of the regular courses may arrange for a special curriculum after consultation with the educational and vocational consultants.

In practice the system will operate as follows:

### Study Courses

Teaching in the different subjects is to be given in study courses which will be divided into "course units". Study courses and course units will be assigned points corresponding to the input of work required to complete the course and take the relevant test. Full-time work during one academic year is assessed at 40 points.

### Lines of study

Teaching is to be organized in a number of "lines of study", with a system of successive options. The student will decide the main direction of his studies (his line of study) at the commencement of university, by choosing a particular study course. Normally after one year of study he will be faced with a new choice between a number of alternative study courses based on the same introductory study course. During his third year the student will as a rule be able to choose freely between the study courses provided.

### Degrees

A new Fil. Kand. (Filosofie **Kandidat**) degree (Bachelor of Arts) is being introduced, which can normally be taken after 3 years of full-time study and should cover 120 points. Students who do not desire a complete education up to this degree will be able to obtain a certificate covering the studies they have completed.

After graduating students will be able to supplement their education by taking a further study course or study courses. Normally, such supplementary studies will be permitted up to a level of 60 points.

## Special lines of study

Students will be able to combine different study courses to form an individual program of studies, a "special line of study". The student will receive advice and vocational guidance in connection with such a choice.

## Changes in line of study

The student who finds he has made a bad choice will be able to change his line of study. The change should usually be made after hte student has completed one study course. A student who as successfully completed a study course in the first division should, after due notification, have the right to switch to another line of study. In other cases, an exchange should be possible with the permission of the appropriate studies committee.

## Examination

To an increased extent, tests will relate to shorter sections or be made an integrated part of teaching. Normally, the student should take a test at the first regular opportunity offered. A further opportunity to take the test should be offered in close conjunction with the first. Compulsory teaching should be incorporated only in exceptional cases, e.g. for certain laboratory work.

The student should normally have mastered three quarters of a study course before he is permitted to continue to the next. Normally, he should also have completed the basic course (normally 40 points) before he is permitted to start the continuation course. Students not meeting the requirements for starting a new study course will be given an opportunity to receive supplementary instruction and take tests during the following term.

A full-time student who, during the third term of study on the same study course of 40 points, fails to complete the course may be excluded from instruction on the line of study in question. The studies committee at the university, which includes representatives of both lecturers and students, should decide whether and on what terms such a student should be given further instruction on the line of study in question.

To avoid the delay involved in pursuing two parallel courses both of which are organized on a full-time basis, there will be certain criteria concerning the proportion of the first subject which must be completed before the student can go on to the next subject. This is not definitely specified and each case will be examined on its merits.

In courses followed by a large number of students, teaching should be arranged in separate groups for full-time and for part-time students. In certain other cases a part-time student should be given an individual program of studies.

if an undergraduate shows clearly unsatisfactory results, he should not receive further teaching in that line of study. The right to be examined will be retained, however. The criterion will be that a full-time student attain a minimun of 40 points in three terms. A first degree, e.g. filosofie kandidatexamen (BA), requires courses totalling 120 points.

The reform program lays particular stress on educational guidance at university level. Such consultation is to be of an active kind and contact is to be made with those undergraduates who show signs of having difficulties in their studies in order that supporting and remedial measures may be arranged at an early stage.

An important feature of the reform program is the new procedure for establishing curricula. Goals and general directives for education leading to a bachelor of arts degree will be laid down by the Government. The Chancellor of universities will issue standard curricula, indicating the aims and scope of the individual courses and proposals for their subject matter. Deviation from these standard currirula may be made by the individual institutions. The curricula for the respective subjects will be established by the Teacher- Student Council on suggestions from the departments concerned. No departure may be made, however, from the qualification requirements or from the special conditions for admission to courses, which will be assumed to apply throughout the country. On the other hand deviations may be made as regards the subject matter of individual intention is that in this way undergraduates may be given the opportunity of influencing the form of their teaching.

The Teacher-Student Councils should be given greater responsibility for educational problems and for questions of university development, educational consultation and curricula, as well as for the follow-up of the results of studies. The right of decision in such questions should, as far as possible, be transferred from the faculty to the Teacher-Student Council, which will also be given reinforced personnel resources.

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Despite considerable opposition on the part of the Students' Union the Government has endorsed the reform proposal The new system will curb admittance by means of higher grade requirements and other prerequisites, in order to make the flow through the university quicker and smoother and to avoid a breakdown by overcrowding. It should also make it possible for the Government to have better control over educational planning and prevent shortages or surpluses in the recruitment of academically qualified personnel.

### iv) Educational democracy in the universities

During the last few years Sweden has made efforts to solve the fundamental problem of democracy. An attempt has been made to create a more personal relationship between the individual and the abstract word "democracy" by implementing the concept of "democracy at the place where you work". The new system of educational democracy can be regarded as part of this program.

The university democracy experiment started in autumn 1969 and results will be reported in summer 1971. In the experimental design every institute was to have a board, consisting of an equal number of teachers and students and a proportional number of other employees. Four different models were offered which may briefly be described as follows:

- In model 1 the board decides on the content and organization of teaching given at the institute. The rest is decided by the president of the institute.
- In model 2 the board decides on the content and organization of teaching and on the institute's budgetary matters. The rest is left to the president.
- In model 3 the board decides on all questions except the appointment of professors, lecturers and other employees at the institute.
- In model 4 the board decides on all matters concerning the institute.

When these plans were first announced, a large number of students wanted model 4 for "their" institute, while many of the professors wanted model 1. The Ministry, however, had foreseen these differences of opinion and prescribed what model should be tested during the experimental phase.

Student representatives feel that it is still too early to say anything definite about the results of the experiment. Some of the main problems connected with it have already shown up. There is first the passivity problem, and that is the main one. The majority of the students are not at all interested in boards or democracy or anything of that sort: they are studying. Furthermore, there is the time problem. How can a student, with the pressure of his studies on his shoulders, find enough time to consult all his fellow students, inform them and discuss with them? How can the student find time to penetrate each problem? Another problem is the confidence problem. Fairly large groups of students (mostly politically committed to the left) maintain that even the mostly "advanced" models ( 3 and 4) provide no democracy.

## b) Norway (1)

### i) Background History

The most important institutions within the Norwegian system of higher education are:

- the universities (until 1968 only two, but in that year two more universities were officially established in Trondheim and Tromsø), and
- the specialized colleges of university standard, hogskoler (six in number, two of which will become integrated in the University of Trondheim).

In 1967, 41.4% of the candidates from grammar schools obtained admission to these institutions.

The demarcation line between academic and other post-secondary education is still fairly sharp in Norway. Within the universities proper it has been made easier to combine subjects from different faculties, but the same cannot be said about combinations of university subjects and vocational courses outside the universities. Such vocational education is not recognized as equivalent to university courses for academic degree purposes. Similarly, a university student who breaks off his study and starts a vocational education will normally get no "credit " for his academic study.

Norway is experiencing an educational explosion. Already some 24% of the age group pass the leaving examination of the grammar school (examen artium). In the course of the next twenty years this percentage will probably rise to at least 40. Today the number of post-secondary study places totals 33,000 (of which 25,000 are at universities and specialized colleges of university level). If the demand forecast is to be met this number will have to be trebled in 20 years. (If the increased capacity needed for further training of university graduates is also taken into account, quadruplication is a more realistic estimate).Within the range of post-secondary education available to school-leavers, where according to these estimates some 90,000 study places will be needed in twenty years, it is estimated that only 40% of students will be at universities and other academic institutions.

Already at the present moment there is an acute shortage of study places in some university studies.In several fields a numerus clausus has long been in force.

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(1) Extract from a report by Lars Roar Langslet on "Diversification of post-secondary education in Norway" submitted in January 1970 to the Committee of Higher Education and Research of the Council of Europe by the Norwegian delegation.

### ii) The "Ottosen Committee"

A "Committee for the Planning of Post-secondary Education" (popularly known as the "Ottosen Committee", after its chairman, Kristian Ottosen) was appointed by the government in 1965. So far the Committee has submitted five reports which have given rise to intense public debate. (1)

In its five reports the Committee has made an evaluation of the educational facilities that will be necessary to meet a rapidly growing demand for higher education of all types.

The Committee estimates that by 1985 the number of students in post-secondary education will have trebled and reached a total of about 100,000. This would mean that by 1985 approximately 1.6 per cent of GNP would have to be used on post-secondary education, as against 0.75 per cent at present.

In its final report the Committee expresses the opinion that every effort should be made to reduce the drawbacks created by the present restrictions on access to the "closed studies". As regards those lines of study which cannot be opened fully, the Committee proposes that the selection process be based on the drawing of lots between qualified candidates. Gradually and systematically the number of those admitted should be increased.

With regard to the present system of examinations the Committee urges that a thorough study of this be carried out and that measures be adopted to simplify the system. An effort should be made to move away from detailed grading of study performance. Periodic tests should be introduced to provide the individual student with information about his performance; these tests, however, should not, as a rule be obligatory. It is also proposed that free access be given to a collective final examination, which would also be open to those who have not followed a regular course of studies. The Committee regards this as being particularly important in respect of those lines of study to which access is now restricted.

The responsibility for the content of each program of studies offered must lie with the individual institutions. At the same time it must be insured that a student of average ability can complete the program within the normal time limit. The Committee stresses that the content of study programs must be reconsidered on the basis of an overall evaluation of the relationship between basic education or training, and further training, which each individual may acquire after having been engaged in practical work.

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(1) The fifth and last report of the Committee for Planning of Post-secondary Education in Norway, was published in mid October 1970.

**The Committee points out that the present organization of technical studies is in danger of leading to over-specialization and early obsolescence of knowledge. It suggest the in corporation into technical studies of certain elements of insturction in the fields of sociology, economics, public administration, electronic data processing, etc....**

The report also deals with financial assistance to students in post-secondary education. It does not make any concrete proposals on the amount of assistance to be given to different categories of students. It stresses the need for the elaboration of clear policy lines, with the least possible delay, on the basis of the principle that no student seeking post-secondary education should be prevented from studying on financial grounds.

The proposals so far made by the Committee are related to the overall structure, and all the details will have to be considered by the institutions concerned and by the government authorities. The generally favorable reaction to the recommendations in responsible political quarters, seems to indicate that they will have a decisive influence on future development in this field.

It is interesting to note that the Committee started by discussing the criteria to be applied when working out plans for the educational capacity needed in the future. It was decided that the demand for education from the young people themselves had to be the main criterion. The overall system of education must be planned so as to satisfy this demand, offering differentiated educational opportunities to all young people desiring and qualifying for education beyond the examen artium. But within the separate branches of education, particularly those requiring large investments, the demand must in pratice be weighed against other considerations. If, in some cases, this leads to a situation where the demand exceeds the capacity of the institutions, the rejected applicants must be given a real chance of finding possible alternatives at an appropriately high level.

The model outlined for university studies by the Committee lays great stress on the greatest possible flexibility within the system. Students must be permitted to combine elements of different study programs inside and outside the universities, by means of a "credit"system. This means that transfer possibilities between the institutions must be greatly extented. In the case of university studies the model implies that the various degree studies should be divided into relatively comparable time units, concluded by an examination. It also follows that there should be a common system of evaluation, so that a "credit" obtained for a course of study at one institution should be commensurable with "credits" in other subjects and at other institutions.

A consequence of such a model would be that university degrees could be awarded on the basis of subject combinations corresponding to a fixed number of credit points, no matter at which institutions the student has passed the part examinations. One obvious limitation of such educational flexibility would have to be maintained, viz. that all the separate subject units must have a certain academic coherence.

Within the universities the Ottosen Committee recommends a systematic organization of two new types of study - post graduate education for research and refresher courses for graduates during their professional life.

In some subjects the universities already give systematic guidance to graduates working for a doctor's degree. In most cases, however, this task is not properly tackled, and no formal pattern exists. In the opinion of the Committee post-graduate education for research should be an essential duty of all university departments, but in forms adapted to the special needs and conditions of each discipline. Regular study for a research degree should be based either on the completed first degree study (the first four years) or on a second degree (normally requiring two further years of study).

In many fields refresher courses for those who have had an academic training are already organized, on the basis of co-operation between educational institutions and professional organizations.

The Ottosen Committee's recommendation concerning post-secondary education introduces in a Norwegian context the philosophy expressed by "lifelong education". Access to post-secondary education must be regarded as a right, which according to the Committee must be established by statute. It is particularly important to insure that this right can be enjoyed by the large groups which are at present barred from any kind of post-secondary education, such as housewives, fishermen and farmers.

The Committee considers that in the near future, 5% of the university graduates should at any time be taking further education, This means a 7 - 10% increase in the capacity of the institutions. In the somewhat longer run, one should expect 10% of the university graduates to be engaged at any time in further studies, in which case the required capacity increase will be between 15 and 20%

The financing of the education should form part of the normal budgeting of the institutions. A greater problem is the economic situation of those who engage in post-secondary education, most of whom will long have been in paid employment and have a family to support. The Committee suggests a financing scheme patterened on the social security system. The reason given for this is that post-secondary education must in many ways be regarded as an insurance against the risk which the traditional unemployment insurance is intended to cover.

One essential feature of the model proposed by the Committee for the future system of higher education in Norway is the establishment of a new type of post-secondary educational institution called the disctict college.
According to the plan the district colleges are to provide fairly short courses of vocational education on the basis of the examen artium. Some of these would be in new forms of education, others are already in existence, but at the district colleges they would be coordinated within a more comprehensive and more flexible pattern. In addition, however, it is intended to let these colleges offer elementary university courses, both teaching for propedeutic examinations of the universities (the teaching for which has already been decentralized to some extent), and teaching for first level university examinations in certain popular subjects,

(particularly sciences and languages). Such subject examinations should count as units for regular university degrees. Certain examinations in the more vocationally oriented subjects taught at the district colleges may also be given the same status.

The Committee has recommended that for the purposes of higher education the country should be divided into twelve educational regions, four of which would have a university city as their natural center (Oslo, Bergen, Trondheim, Tromso.))

### c) Denmark

#### i) Present(1) organization of Higher Education

In Denmark, higher education usually means education based on the matriculation examination, and organized on basis presupposing a close relation to research in the fields concerned.

Accordingly, fourteen institutes have formally the status of institutions of higher education; including:

- The University of Copenhagen
- The University of Aarhus
- The University of Odense (inaugurated in 1966)
- The Technical University of Denmark

Broadly speaking, the period of study at the universities is designed to last between five and seven years, but the usual period is somewhat longer. At the other institutions of higher education the period of study is somewhat shorter, usually four or five years, although approximately one-third of the students require from six to twelve months longer.

Studies at the universities and the other institutions of higher education are normally concluded with an examination or, in a few fields, with the examination for the "Magister" degree, the latter leading to research work.

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(1) Extract from a report on "Diversification of Post-secondary Education in Denmark" by Werner Rasmussen and Ernst Goldschmidt (Planning Council for Higher Education) submitted in August 1970 to the Committee of Higher Education and Research of the Council of Europe.

The studies are generally divided into several parts which, with few exceptions, are not considered as independent qualifications.

At most institutions of higher education, students have access to more advanced studies for licentiate degree, such studies normally lasting two years. This degree may be granted to candidates who have shown aptitude for independent research, as the studies are concluded with a treatise on which a lecture is given. In addition, an examination is held.

Doctorates are conferred only by those insitutions of higher education which carry out research. This degree is normally awarded on the basis of an independent thesis which is publicly defended and judged by the faculty or institute of higher education concerned.

Education at the universities and the institutions of higher education is free of charge, all expenses being paid by the Treasury.

## Conditions of admission to higher education

The higher secondary leaving examination (matriculation examination) gives unlimited access to studies at all university faculties, including the faculties of natural science and medicine. Subject to space restrictions, access is guaranteed on the same conditions to other institutions of higher education as well.

In addition, those who have passed the leaving examination of other institutions of post-secondary education, such as the teacher-training colleges, the technical colleges and the School of Library Science, have access to the universities.

To be admitted to the other institutions of higher education, applicants must have passed either the matriculation examination, possibly including a supplementary test, or a special entrance examination in science. Pupils having passed the lower secondary leaving examination ("real" examination) may sit for this latter examination after attending a twelve-month admission course. Because of limited capacity, however, admission to most institutions of higher education is restricted to a certain number of students.

In 1967, a "second route" to post-secondary education, the Higher Preparatory Examination, was established. Pupils are prepared for this examination at two-year courses which they can attend without formal qualifications; they must only testify to the possession of knowledge normally acquired after ten years of general education. The examination is given in a nucleus of compulsory subjects and a certain minimum of other subjects of the pupil's own choice where requirements are higher. To sit for the examination it is not compulsory to attend the course, and it may be passed piecemeal subject by subject over several years. The Higher Preparatory Examination gives, at present, access to the teacher-training colleges and - if the examination passed in the subjects with extended requirements is relevant to the future study desired - to the universities and a number of other institutions of higher education.

## ii) The future structure of post-secondary education

The intake and enrolment forecasts for 1980 and 1985 are based on the assumption that general secondary school attendance will continue to increase until the mid-nineteeneighties, when 40-50% of an age group - or a total of 30,000 annually - will qualify theoretically for some sort of post-secondary education. These forecasts lead to the conclusion that the traditional system of higher education will not be able to cope with such a high intake.

### The module structure

A number of new study plans from the late sixties are based on a system of two-year modules. Each module is finished with an examination which qualifies the student in a new two-year module.

The first two-year module forms either part one of a main subject (a foreign language, Danish, history, etc.) or a by-subject which, together with a main subject in another field, qualifies for a post as a senior secondary school teacher. The examination leads to the degree: "exam.art.".

The second two-year module forms part 2 of the main subject. The examination leads to the degree: "cand.phil." which is a first-level degree.

The third two-year module may either be a by-subject in another field which together with the main subject gives the degree: "cand. mag.", or continued research-oriented studies in the main subject leading to the degree: "lic. phil." which is a second-level degree.

A similar system has been introduced at the Schools of Economics and Business Administration and has recently been proposed for the science faculties with the intention of creating greater possibilities for combinations of studies in science and humanities and of bridging studies in science and engineering.

### Common basic studies

The possibility of creating basic studies of two-four terms' duration common to related academic and possibly non-academic studies, is at present under consideration in two fields:

> Basic studies in biology should be common for those who intend to continue in medical, veterinary, dental, pharmaceutical or pure biological studies, or for those who want to take a shorter training for psysiotherapist, higher laboratory technician, nurse, etc.
>
> Basic studies in social sciences for those who intend to continue in sociology, psychology, ethnography, economics, law, political science or civics.

### Smaller units or elements

In order to promote the creation of new studies through a freer combination of subjects and to make possible transfer from one field of study to another, the possibilities of breaking the single subjects down into smaller, well-defined units or elements of different level, content and duration is being examined.

This work might end up in a catalogue for each subject with a description and evaluation of each unit or element.

One elementary condition for the introduction of such a system will be a common marking system for all higher education.

The breaking down of the long, rigidly separated academic studies has the following aims:

Through the establishment of common basic studies to
-postpone the student's final choice of study,
-create at the outset - completely or partly - an integrated education as the first steps of related academic and non-academic studies in order to facilitate transfer and, finally,
-replace drop-out with transfer.

Through the building up of studies in modules and the division of subjects into units to diversify the post-secondary education system in a way which will allow the student to complete his studies with a recognized diploma at a level corresponding to his interests and capability, which will offer the labor market a wide variety of highly-qualified manpower and which will make the compostion of new studies a continuing process.

### iii) The future organization of post-secondary education

The present organization of traditional universities and specialized institutions of higher education is an obstacle to introduction of a future structure of post-secondary education in full scale as described

Therefore, the idea of the University Centre has been introduced. An elaborate report on a new organization and administration of university centres was published by the Planning Council for Higher Education.

A university centre is defined as a centre of post-secondary education and research, where the student may take a short study program of two to four terms' duration or continue to the highest possible level of academic training. To avoid the enrolment becoming too large and to economize the scarce economic and intellectual resources, new centres will be specialized in a small number of main fields, for instance, technology and economics or humanities, biology with medicine and social sciences.

It is considered difficult to co-ordinate and place in order of priority the many different research activities and study programs within a university centre, and since there is a need for planning and co-ordination of the main fields of research and study represented at more than one centre, it is proposed to establish a number of central Boards of co-ordination.

This means that the Boards of humanities, social sciences, etc. at the different university centres should submit their budget proposals and lists of priorities to the central Boards of co-ordination in the respective fields. The central Boards then send integrated budget proposals and list of priorities to the Ministry.

### iv) Act on University Centres

The Minister for Education has in the session 1969-70 sent a Bill on university centres to the parliament. This Bill was passed by the Act of University Centres in May 1970. In the act it is decided that new university centres shall be established in Roskilde, twenty miles west of Copenhagen, in Aalborg, in the northern part of Jutland, and in the Ribe-Esbjerg area in Western Jutland.

The Roskilde university centre shall be established as rapidly as possible for the relief of the University of Copenhagen. The centre shall include the main fields of humanities, social sciences, physics, chemistry and mathematics. The centre is expected to be planned for an enrolment of 15,000 students.

The Aalborg university centre shall be established in 1974-75. The centre shall be based on departments of Academy of Engineering, a local branch of the Copenhagen School of Economics and Business Administration, a technical college and a teacher-training college already in existence. The main fields of the university centre will be technology and economics. Future enrolment is expected to be approximately 10,000 students.

The University of Odense, established in 1966, is developing into a university centre comprising humanities (including an academy of music), biology (including a medical school, a school of physical training and a school of physiotherapy), and social sciences (including training of business administrators and social workers). The total enrolment in 1980 is expected to be at least 6,000 students.

The Ribe-Esbjerg university centre shall be established by the end of the 1970s.

### v) University Legislation

The first law that Denmark has had concerning the administration of its universities, was enacted by Parliament at the end of its summer 1970 session. The Bill was introduced in January by the Minister of Education, Mr. Helge LARSEN. It met with some criticism and opposition, both from the students' organizations and the political opposition.

The new [illegible] into force [illegible]

The new law, which comes into force on 1st September 1970, stipulates that the Danish universities will become state institutions.

The law thus gives a new statute to govern the three existing universities of Denmark (Copenhagen, Aarhus and Odense).

Discussions during the preparation of the law which lasted two years may be said to have centred on two topics:

- the integration of all permanent teaching staff in the various governing bodies, and

- the question of student participation in these same bodies.

The two most important statutory innovations resulting from these discussions are:

- the establishment of the principle of integration, whereby all permanent members of staff are elected on an equal footing as members of the university senate and of the faculty councils, departmental councils and boards of studies, and

- the decision that students are allotted one third of the seats in the university senate and in the faculty councils, and that the board of studies, which must consist of an equal number of teachers and students, are given a measure of authority to deal with various matters, especially those concerned with teaching. Thus the sharp distinction between professors and other categories of university teachers is abolished. Originally the Minister proposed that the law should also contain provisions concerning student councils, but this idea was abandoned at the request of the students. They will now have the full right to organize themselves as they see fit.

The first paragraph of the new statute states that the universities are state institutions under direct supervision of the Ministry of Education. The aims of the university are then defined as being the conduct of research and teaching of a scholarly nature. Moreover, it is stated that it is the task of the universities to contribute to the general dissemination of knowledge, and to the application of scientific and scholarly methods and their results.

Freedom for the pursuit of knowledge is maintained by the following statutory provision: "The universities themselves decide which research projects are to be undertaken".

The rector and the pro-rector are elected from among the university professors by the permanent members of staff and the student representatives on the faculty councils. A rector is elected for a period of three years and a pro-rector for two years. Both may be re-elected for a further term of office.

The university senate consists of the rector, who serves as chairman, the pro-rector, deans of faculties, who serve as ex-officio members, and a number of permanent staff members elected by and from among members of the faculty councils for a term of three years. Moreover, a number of student representatives, constituting one-third of the total membership of the senate, are elected by and from among the student body for a term of one year.

The senate appoints sub-committees to deal with day-to-day business, and general purpose committees that, by authority delegated to them by the senate, can act on its behalf. The senate decides on all matters concerning the university as a whole, as well as matters concerning the relationship between two or more faculties.

The University of Copenhagen will have a senate of 26 members. Aarhus a senate with 30 members.

The faculty council decides matters concerning the faculty as a whole, as well as matters concerning the relationship between two or more departments. Its composition is also two-thirds members of staff and one-third students. The faculty council, like the senate, appoints sub-committees to deal with day-to-day business. The faculty council appoints adjudicatory committees to consider applicants for scholarly positions and for the evaluation of theses submitted for a doctorate or licenciate degree.

The universities of Copenhagen and Aarhus have five faculties; divinity, social sciences (economics, law, political science, sociology and psychology), medicine, the humanities and natural sciences and medicine combined.

The departmental council is the chief governing body of each department. It consists of all members of the permanent staff, as well as representatives of other personnel (laboratory and office workers, etc.), and of students pursuing studies within the department in question. The size of the representation of the latter two categories is determined by the faculty council concerned.

Boards of Studies are appointed for each department with an equal number of members from among staff and students, elected respectively by the teachers and students within the field concerned. The size of a board of studies may, in practice, vary from six to twelve members.

The boards of studies deal with matters concerning the conduct and organization of studies, the planning of the teaching programs and the holding of examinations.

The new law is subject to revision during the parliamentary year 1972-73. By then the Government will have decided whether it is advisable to establish an administrative body which would serve as a link between the Ministry and the institutions of higher education. The fact that post-secondary institutions are rapidly growing in number and diversity, and that it is becoming increasingly necessary to lighten the burden of the Ministry as well as to co-ordinate the expansion of higher education and the priorities that have to be set, seems to suggest such a solution.

### v) A few figures

As of September 1st, 1970, the University of Copenhagen has about 24,000 students, about 215 professors and 1,000 other full-time members of staff besides part-time instructors and those teachers who are paid according to the number of hours actually taught.

## B) Policy and Planning for Post-Secondary Education A European Overview

Post-Secondary education was selected at the Sixth Conference of European Ministers of Education to be the main theme of the next Conference. It will be discussed under its various aspects, for instance the long-term policy implications of integrating post-secondary education into the emerging system of "permanent education"; the diversification and decentralization of post-secondary education; and also mobility of students, teachers and research workers. In accordance with previous Conference practice, the Conference Secretariat, in consultation with the Committee of Senior Officials, has commissioned a background report on the main theme of the Seventh Conference from an expert, Professor William Taylor, Director, University of Bristol School of Education. The report, which represents the personal views of its author, aims at facilitating the discussion of this vast, rapidly developing and complex theme at the Conference. (Brussels, May, 1971).

The report contains an introduction and seven chapters. These cover policy objectives and constraints, system objectives and social goals, structural and institutional changes, financial and economic aspects, organization for learning. The government of post-secondary education and, finally, a chapter entitled Objectives, Promise and Performance.

* The scope and purpose of this paper can be stated as being to examine and to illustrate some of the new concepts of educational provision for those who have left school that are at present under discussion or being tried out or undergoing development in European countries, and to suggest a number of themes and questions about these processes of thinking, trial and development.

### Introduction

The introduction examines some of the factors associated with the rapid expansion of post-secondary education in member countries in recent years and raises a question of central importance to the Conference.

> Is the patter of provision that served when only a small proportion of the population continued their education beyond school any longer appropriate to a situation in which a third of all 18-24 year olds are in full-time attendance in institutions of post-secondary study and an increasing proportion of adults are enrolled into full-time and part-time courses? If not, what changes need to be made, what will these cost, and how will they be brought about?

### 1) Policy Objectives and Constraints

This chapter examines three major objectives which feature prominently in government and nongovernment statements about policies for the development of post-secondary education - the satisfaction of social demand, improving equality of educational opportunity, and meeting the manpower needs of society.

A number of countries have based their recent policies for post-secondary development on the satisfaction of social demand e.g. "...all who seek post-secondary education should be able to find a fully acceptable alternative at the academic level for which they are qualified".

The factors contributing to social demand are considered and it is argued that social demand is essentially a passive objective. Among the discussion issues raised by this section of the paper are:

> What effects will member governments' policies for the development of secondary education have upon the size and the nature of the demand for post-secondary provision?
>
> How much agreement is there concerning the desirability and the feasibility of a "social demand" basis for future post-secondary planning?
>
> What are the political and social consequences of a substantial unsatisfied demand for post-secondary education - overall and/or in particular study lines?
>
> Can a social demand basis for planning be reconciled with the improvement of equality of educational opportunity?

The second section of the chapter outlines the evidence for the existence of substantial social and regional disparities in participation in secondary and post-secondary education and suggests why policies aimed at reducing these disparities have not been particularly successful. This raises a discussion issue of some importance:

> What priority do member governments attach to policies aimed at improving equality of educational opportunity? In particular, what are the implications for post-secondary development of a suggestion that interventionist strategies in pursuit of this objective are most likely to be effective when they are applied at the pre-school and primary stages?

The final part of this section argues that if on-going changes in post-secondary provision are to be politically and socially acceptable. students and their families will have to revise their ideas about the relative social and economic benefits that such education confers. This point has implications for a later stage of the argument concerning the possibilities and problems of diversification.

The third section of Chapter One looks at some of the efforts that have been made to use manpower forecasting in planning post-secondary provision and the reasons why such forecasting has had only a modest influence on policy. It is argued that steps need to be taken to improve the methodology of studies in this field and the quality of the data on which they are based. Manpower considerations are of central importance, but they are not autonomous. More attention needs to be given to the analysis and discussion of the broader social and economic objectives which give rise to the activities in which manpower requirements are rooted.

### 2) System Objectives and Social Goals

The three objectives examined in Chapter one recur frequently in the literature of educational planning, are well documented and are increasingly providing topics for systematic research and enquiry. But governments and citizens have many more objectives than these in mind in demanding and providing post-secondary education. Many of these objectives are difficult to state with precision, and success in achieving them is hard to quantify and to evaluate. The first part of Chapter Two discusses these difficulties and argues that progress requires a great effort to be made to close the gaps that exist between the languages of planners, politicians, researchers and administrators.

The second part of this Chapter suggests a provisional and inexhaustive list of ten possible objectives for the system of post-secondary education. Each objective is multi-facetted. The ten suggested relate to the organization of research and the production of new knowledge; the provision of appropriate courses of instruction; the maintenance of a balance between institutional autonomy and social accountability; the relationship of post-secondary education to life-long education; the importance of minimizing differences in institutional status; the provision of facilities for student guidance and counselling; the improvement of productivity; the importance of staff and student participation in policy and decision making; the part that post-secondary education might play in the moral and political education of citizens, and, finally, the contribution of institutions of post-secondary education to cultural change and the improvement in the quality of life. Each of these gives rise to a large number of discussion issues, which are outlined in a short section following the statement of the objective concerned.

### 3) Structural and Institutional Changes in Post-Secondary Education

In this chapter an attempt is made to classify the many types of structural and institutional changes in post-secondary education that are taking place in European countries. The first part of the chapter raises an important general issue about the attempt in many countries to "diversify" post-secondary provision (By "diversification" is understood the creation of new institutions for post-secondary studies at higher education level and the granting of a higher status to institutions of traditionally non-university character, together with attempts to widen the range of higher education by creating new types of study.)

> "Recognizable differences will exist between post-secondary institutions, which, in recognition of varieties of student need, interest and capacity, will have differing degrees of involvement in research, will tend to prepare for occupations at different levels of prestige, will attract staff of varied standing, and are likely to be subject to different patterns of public and private expenditure. These differences will not be acceptable by increasingly educationally self-conscious electorates and politicized younger generations in democratic countries if the differences in the rewards, social status and conditions of work of the vocations to which different kinds of post-secondary education lead remain large or are widened... Without concomitant reforms (diversification) is all too likely to be perceived as a way of providing a cheaper and rather inferior type of provision for the mass, whilst preserving the distinctiveness of certain traditional insti-

tutions for the few."

In the second part of the chapter there are eight headings under which recent developments are described. These include the creation of new universities; the division of existing university foundations, and the upgrading of other institutions to full university status; the establishment of new polytechnical institutions offering both long cycle and short cycle courses; the federal association of new and existing institutions; the concept of the "Open University", and the "Comprehensive University"; non-university vocational and professional education; the contribution of teacher education to post-secondary provision, and, finally, the problems and possibilities inherent in the new concept of Recurrent Education.

### 4) Financial and Economic Aspects of Post-Secondary Development

This chapter is in three main sections, dealing respectively with estimates of growth and expenditure, with problems of productivity and with mechanisms for student support.

The section on growth and expenditure raises a number of discussion issues:

> Can we afford the scale of expansion that a continuation of recent trends in the demand for post-secondary education would entail? In terms of resources and of opportunities foregone, the costs of meeting social demand for post-secondary education are heavy. But there are also likely to be substantial political, economic and social costs attached to policies that result in the demand for such education being left unsatisfied. Can any useful general principles be established by the Conference to serve as guidelines for member governments in their policy making in this field?
>
> Do we have the kinds of data that furnish a rational basis for our decision making on such issues as these? If not, what steps are necessary to make such data available?

The next section of the Chapter deals with five approaches that have been suggested for the improvement of productivity - the reduction of wastage, securing economies of scale, greater cost effectiveness in the use of plant and facilities, limiting the expansion of research activities and developing less expensive forms of post-secondary provision. Whilst the full possibilities of these and other measures to improve productivity still remain to be explored in many member countries, it has to be recognized that such methods also involve potential costs, especially if they worsen staff/student ratios and permit institutional facilities to fall below an acceptable level.

Finally eight possible sources of student support are distinguished and the merits of loan and grant schemes discussed. From this section the following issues may be singled out for further consideration:

> Are there grounds for claiming that systems of student support

that are in operation in member countries need to be re-examined in the light of the objective of improving equality of educational opportunity, the economic advantage conferred upon the individual by undertaking post-secondary education and the possibility of new methods of financing study? What steps need to be taken to enable adult students to undertake periods of full-time study in mid career? Is it possible through social security schemes to "guarantee" the individual a given number of years of post-secondary study, which could be taken up at any point in a lifetime, and not simply on leaving school?

What effect might this have on the demand for post-secondary education from school leavers?

### 5) Organization for Learning

The objectives discussed in Chapters One and Two will not be achieved simply by means of institutional and structural changes. They also require reforms in the organization of learning within and between institutions. In this Chapter some aspects of these reforms are discussed under a number of headings - flexible learning systems, the wider application of educational technology, and improvements in the quality of teaching. The need for flexibility in course and examination requirements suggests the following discussion issue:

> What kinds of structural and institutional rigidities in the organization of learning can be identified in member countries, and what action needs to be taken to minimize their effects? How can this action be planned in such a way as to preserve the high standards of research and scholarship that many organizational frameworks have grown up to protect? Would the more general establishment of units/credits systems improve the flexibility of transfer between courses, between institutions and between countries? Might such systems, over-enthusiastically applied, lead to a dangerous fragmentation of disciplined study?

The section dealing with the technology of teaching stresses the need for a distinction to be made between the application of new methods which are primarily aimed at securing economies of operation by improved communication of existing instructional patterns, and those which are directed at more effective learning. The uncritical use of the former can be dysfunctional; the systematic employment of the latter waits upon the extension of existing research and development programmes. Some points are also made concerning the possibility of a larger proportion of the student's work being self-directed; from these the following issue arises:

> What changes are needed in the methods of teaching employed and the habits of mind generated in the secondary stage of education, if the student is to be more self-directing at subsequent levels?

It is sometimes argued that present-day systems for the examination and assessment of students tend to produce negative side-effects and to increase wastage; there appears to be room for much more experimentation with new methods of evaluating the quality of student learning, such as continous assessment throughout the course. The section referring to the quality of teaching in post-secondary education gives the rise to the following question:

> Given the rapid expansion in the number of professors, lecturers and teachers in post-secondary education in recent years, should some form of training in teaching techniques at this level be made more generally available?

### 6) The Government of Post-Secondary Education

This Chapter deals with five aspects of the government of post-secondary education - relationships to society and to the State, links with industry and with professional groups, relationships with the local community, problems of internal self-government, and student participation in institutional government.

The first section argues that, whilst the fact that debates about the future of post-secondary education necessarily include a political element must be recognized, there are dangers when this becomes too obtrusive, and when issues are over-simplified and personalized.

> What kinds of institutional frameworks and processes are necessary to ensure that a balance is held between on the one hand, the legitimate interests of the State and of society in the objectives and activities of post-secondary education, and, on the other, the need for some degree of autonomy and self determination on the part of post-secondary institutions?
>
> Similarly, what can be done to maintain a balance between responses to short-run presures deriving from the economy, from technological development and from political factors, and longer-term educational considerations?

Examples are given of some of the planning and control mechanisms that have been established in member countries to deal with these problems.

The second section of the chapter gives some details of how links are being forged between industry, the professions and institutions of post-secondary education. It is emphasized that these links need to be characterized by close contact and consultation, rather than by subordination and dependence.

The third section looks briefly at some of the advantages that have been claimed for student residence away from home, and also draws attention to some of the drawbacks of these arrangements at a time when an increasing proportion of the population are demanding some kind of post-secondary provision. It is argued that planning in this field cannot be conducted on an autonomous basis.

> What mechanisms exist, or need to be created, to ensure that

planning for post-secondary education is associated with broader social and economic planning for the identifiable geographical, cultural, ethnic and linguistic regions that may be found in member states?

The fourth section examines some of the criticisms that have been made of existing arrangements for institutional self-government, such as its relative slowness and inefficiency, its tendency to be unresponsive to national needs and interests, its 'collegial over-protectiveness', and lack of interest in relationships with other institutions at the same or cognate levels. Examples of suggestions that have been made for the reform of internal government are given.

The final section of this chapter emphasizes that no attempt is made in the report to deal systematically and in depth with the problems of student militancy that have become a commonplace of discussion about post-secondary education in recent years. There are, however, certain specific issues that may be raised about student participation in institutional government:

> To what extent can student participation in the government of institutions of post-secondary education contribute towards the achievement of the objectives set out in Chapters One and Two?
>
> Can any general guidelines be established concerning the areas within which student participation is likely to be helpful and those in which it would be inappropriate?

### 7) Objectives, Promise and Performance

An attempt is made in this Chapter to evaluate the likely effectiveness of on-going and planned changes and reforms in post-secondary education in achieving the objectives that were set out in Chapters One and Two. Such an attempt is necessarily speculative. Some of the major conclusions are set out below:

a) At the present time, a shortage of resources, insufficient institutional flexibility, and a lack of appropriate structures make it difficult for the social demand for post-secondary education to be fully satisfied in many member countries. The size and direction of this demand is capable of being influenced by the level and type of provision that is made at both secondary and post-secondary stages. There is evidence that the view is gaining ground in a number of member countries that the satisfaction of social demand may need to be subordinated to other social and educational objectives. The grounds for this view, and the nature of the priorities involved, require careful and systematic discussion, particularly in relation to the economic and technological effects of slowing down the expansion of advanced study and research, and the political and social repercussions of either leaving a large unsatisfied aggregate demand or of appearing to offer lower-level substitutes for genuinely post-secondary studies.

b) Effectively to pursue equality of educational opportunity involves major political decisions, and cannot be accomplished simply through the operation of the educational system, which cannot of itself produce solutions to problems involving the main social and economic structures of society.

c) Improved techniques for manpower forecasting are needed, and the relationship of manpower objectives to broader social and economic objectives needs to be explored with greater thoroughness. General and non-specific courses provide for a diversity of later occupational lines, and furnish the study skills that are essential if life-long learning is to be a reality. The need for such general studies has somehow to be reconciled with the demand for 'relevance' and the demands of society for larger numbers of skilled men and women at technician and paraprofessional levels.

d) Problems of reconciling autonomy and accountability are endemic in democratic societies. As the pattern of post-secondary education becomes more diversified, the problems associated with maintaining an appropriate balance will not become any easier to resolve; success in this area is in large part dependent upon the establishment of carefully designed institutional structures, consultative procedures, and information and communication systems, all of which contribute to the maintenance of a healthy level of dynamic tension within and between individual institutions and local, regional and national bodies.

e) In some fields, the organization and content of studies do not yet adequately reflect new discoveries and new knowledge. Whilst the emergence of new paradigms of knowledge and of teaching is not something that can, or should, be forced, there is room for government encouragement of experimental programmes and courses which, if successful, will inevitably have an influence on the rest of the system.

f) The relationship of post-secondary education to the concept of life-long education raises many problems which remain to be explored, and exposes a number of weaknesses in our existing arrangements. At present, the organization of teaching and course content does not take sufficient account of the need to stimulate the student's desire and capacity for further study; there are insufficient opportunities and too little financial support available for adult students; entrance requirements are often inflexible, and methods of examination and assessment are employed that rest upon tradition, statistical fiction and administrative convenience.

g) In a number of countries difficulties are being experienced in recruiting students to new types of post-secondary institution and new types of study lines; some of the newer types of provision are regarded as 'second best'. These problems seem likely to worsen as the pressure for places increases. Efforts to minimize their effects are to a very large extent dependent on decisions and social trends outside the educational system. Insofar as certain occupational fields continue to be dominated by the graduates of one type of institution, traditional status distinctions will very much influence the direction of student demand for places. To the degree to which such fields become more open, and men and women from a variety of backgrounds achieve success within them, the power of these distinctions will be weakened. But the degree of equality that exists between different qualifications is very dependent on the structure of status and rewards in the occupations and careers to which these qualifications lead; this is something beyond the power of the educational system to control, and requires major political and social decisions.

The expansion and diversification of post-secondary education must be recognized as having social and political consequences of profound importance, the full extent of which does not yet appear to have been recognized.

h) It seems doubtful if there can be any dramatic reduction in the unit costs of post-secondary education of a kind that does not have undesirable educational, social and political repercussions, the magnitude of which are likely considerably to exceed any short-term savings. Attempts to improve productivity are more likely to be successful if they are directed towards the reduction of wastage and the improvement in the quality of teaching and learning in post-secondary education.

i) There is a need for more studies which, within specific fields, explore the relationship between research, innovation and change, with a view to obtaining a clearer picture of the economic and non-economic benefits of research activity and helping to provide a basis for the rational allocation of resources to particular types of research and development. There are important questions to be settled within individual countries as to the most favourable allocation of research resources between institutions and specialized agencies.

j) There is a need to identify some of the educational and social indicators that would enable us to begin to make more systematic evaluations of the outcomes of post-secondary education - for the individual, for the community and for society. Attempts to identify and evaluate non-economic objectives must be accepted as part of any consistent process of planning and development in this field - hitherto, there has been an overconcentration upon economic and readily quantifiable criteria; this has had the effect, not only of diverting attention from some of the most important issues, but also of limiting the apparent range of policy choices that are open. There is very little in the field of post-secondary education, as in most other areas of social policy, that needs to be accepted as 'inevitable'. The possibilities of choice are wider than we think; international discussions of the issues involved must be directed to exploring these choices, and identifying the data that are needed and the considerations that have to be taken into account in selecting among them for the purpose of policy making.

## III) Permanent Education

( A new concept of global educational policy)

The three following essays:

A) Permanent education An agent of change

B) A model for recurrent education

C) Towards the construction of a system of permanent education

reveal a remarkable converygence of views based on common problems and common trends and indicative of the momentum the new concept of permanent education is gaining in Europe (1)

⁂

### A) Permanent education - An agent of change

(from H. Janne ) (2)

#### 1) General starting hypothesis

"The development of opportunities and methods for an education appropriate to individuals who have concluded the informal education constitutes a basic phenomenon which will inevitably cause a fundamental reform of the whole present education system."

This hypothesis has the following corollary: "The organization of adult education, its objectives, methods, atmosphere, functional requirements will demand radical changes in the present formal education system (including the university), traditional school structures being gradually transformed to their image."

This corollary is the very reverse of the process which has so far actually taken place (influence of the schools on adult education). This reversal will be both the necessary consequence and the essential cause of the transformation of contemporary societies be they highly industrialized or in course of development. And this, in its turn, will cause the transformation of modern man's life, and its meaning.

This manner of reasoning leads necessarily to a long term view (covering 15 to 30 years, i.e. a view extending to the year 2000). In regard to choice of aims, such long-term perspectives leave human institutions far more freedom than short term forecasts, already contained, as it were, in the present and on which man has but little influence.

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(1) See Information bulletin of the information center for education in Europe no 3/ 1969 ( Council of Europe )

(2) H. Janne, former Minister of Education in Belgium

## 2) The education system and the transmission of knowledge

The social nature of the education system can be defined as follows: "By education system are meant all the procedures and methods whereby a global society gives its members organized and controlled education in the various fields of human activity for the purpose of the maintenance and acceptance of the social structures and the values which justify them."

Two kinds of social system are known to history:

a) societies the maintenance of whose "stability" requires fundamental and continual efforts; they are the so-called "traditional societies," of which the tribal or feudal society is an example;

b) the "changing" societies; these comprise all the societies which have undergone an industrial revolution.

The main feature of any social system is nevertheless its aim to maintain its global structures. This is clearly evident in the case of the "consumer society," which is undergoing rapid changes but profits from these very changes to maintain its basic structures.

It might be said that in any society the education system is the internal, conscious and organized learning process.

a) The traditional education system has been constructed by degrees in societies which had three main traits:

- i) the striving for stability by reciprocal adaptation of the human and natural environments and by the maintenance of the social order regarded as natural;
- ii) the inequality of men institutionalized in more or less hallowed social hierarchies;
- iii) fixed techniques embodying only improvements produced by empirical research.

These traditional societies are predominantly agrarian.

b) But since the industrial revolution many of these societies have become "changing societies". Their salient features are now industry, urban life, the development of services. They are losing their traditional rural and artisan character. Yet they remain caught up in the values and practices from which they emanate historically. And in a latent or implicit way there remains something of:

- i) stability (as an ideal and a natural safeguard,)
- ii) the hierarchical inequalities (with a touch of the sacred),
- iii) the striving for security (in the rigidity of technical masteries.)

The "changing societies" have nevertheless fashioned and introduced new values:

- i) the improvement in the human lot and society, the struggle for an ever more complete domination of the nature,
- ii) the basic equality of all men, the rejection of discrimination, on grounds of sex and race, the right to social participation

according to everyone's needs, interests and aspirations, social hierarchies based solely on functional requirements.

iii) the systematic organization of scientific and technical innovation (science is no longer concerned solely with knowledge of the world and the betterment of the individual, but also with the transformation of the world and of man.)

Yet the education system was shaped slowly in the traditional universe. The society adapted it to its own specific values (progress, equality, scientific and technical innovation) but without eradicating the old values which are still present in the social system (stability, inequality, mastery of fixed techniques). The present education system embodies organic factors of resistence to the need to meet the requirements of a "changing society".

Thus a certain measure of democratization of education has been achieved (compulsory schooling, end of ruling circles' monopoly of secondary and higher education) but, the structures of the education system impede the elimination of the influence exerted on education by the social hierarchy. The disparity between the actual state of science and technology and school programs is considerable, (without even taking into account the continuing myth of knowledge definitely acquired.) Education structures are, admittedly, undergoing change, but more through addition than substitution. The idea of the primary of the "humanities" as compared with the "new" branches of secondary education, regarded, at least latently, as a "second choice" is a very good illustration. The same applies to the rigid system of "lawful" university diplomas, alongside of which "scientific" diplomas are being introduced whose social value is still largely questioned.

Some traditional structures of the education system remain firmly in place. Firstly, there is the "class" composed of pupils of a strictly specified age group; these "classes" are, in principle, of a homogeneous standard in all schools of the same level and have a general syllabus all the subjects of which pupils must master in one year to be able to proceed to another "class". Why, may we ask, should a pupil not be in the fourth form of mathematics and the first form for the mother-tongue?

When carrying out research on any education problem it is necessary to bear in mind the real nature of the education system whose functional purpose is to preserve the fundamental social structures even if their underlying culture entails the recognition of change.

### 3) Future prospects of the education system in the light of the evolution of the most advanced societies.

In industrialized societies a normal human life is, even today, divided into three main phases despite the changes which are taking place with unprecedented speed:

a) -the schooling phase,
b) -the working phase,
c) -the retirement phase.

However, the classical pattern of the three phases of life is changing extremely rapidly at the same time as the principles of the education system underlying it.

What is causing the change?

Scientific and technical knowledge is increasing and undergoing renewal so speedily that the "foundation" supplied by the school (including the university) soon becomes insufficient and imperfect for everyone. Immediately on leaving school the need for new knowledge arises. Man will, therefore, have to begin studying anew on many occasions throughout life if he wishes to "keep abreast" with progress. Education will, therefore, no longer be confined to, or guaranteed by, an initial specialized phase of life.

But it is by no means merely a question of renewing one's knowledge fundamentally within the context of one's occupation, for this occupation itself changes radically: many men are already compèlled to change their "trade" during their working life.

The more technically advanced a country is, the more the structure of its active population fluctuates and the greater is its social and geographical mobility.

Attention must also be drawn to the decisive impact exerced by new communication and transmission methods. In this respect, western civilization has undergone changes of a revolutionary character.

Each time, new occupations appear in this context: the scribe, the printertypographer, the secretary shorthand-typist, the computer programmer.... Each time the interdependence of men underwent a change in its organization, calling for new qualifications and new hierarchical and relational machinery. Furthermore, mass communication media supply everyone, and especially youth, with an undreamed of profusion of news and topical information. Young people receive more information outside school than in school, but they are only taught empirically by the family, casually at school and through their own experience, to make use of this information, to criticize it and to make an intelligent and efficient selection from it.

These considerations explain, therefore, not only the growth in the "educational" needs of adults but also the school system's inadequacy in the new context and the speedy changes undergone by the very content of knowledge. It is thus a new society which is taking shape before our eyes and, consequently, also a new education system.

The following results of these complex developments are already clearly discernible:

i) The schooling of youth will be less and less a matter of acquiring knowledge and information but will be more and more devoted to the acquisition of methods of thought, critical reactions and disciplines which "teach how to learn". Thus the time devoted by youth during the day, week or year to school activities proper will be more and more limited. It is during their leisure time that young people will learn to absorb information and culture and prepare themselves for an adult life. The school could save much time by refraining from imparting information, since the mass communication media will be qualified to discharge the task systematically. The task of education will, therefore, be to shape an "adaptable" man rather than to produce a "finished" man in a single process.

The schooling period, hitherto passive, will become active and involve personal responsibility and leisure time for the absorption of culture.

ii) The employment period will also be characterized by leisure time for the absorption of culture, but this leisure time will have to be more and more often devoted to occupational adjustment and to keeping abreast of or acquiring knowledge to this end. This will be the "permanent education" system and the requisite institutions will have to be set up or developed. Another part of leisure time will have to be devoted to community "participation" rendered essential by the complexity of political, economic and social life.

iii) Retirement at 65 years of age, in its present form, will be a thing of the past.

This new social system which might be called the system of the "three activity sectors" implies permanent education.

The structures, objectives and methods of the traditional school will be wholly transformed. The new education system will, in particular, provide for study levels which will be independent of pupil's age. Thus "schooling" will no longer have to be accomplished in a specialized context called school. The role of the teachers will change radically: "teachers" and "lecturers" will become "counsellors" "advisors", "tutors", "programmers".

The present dichotomy "school" and "post-school education" will be replaced permanently by a double structure: the "Permanent education" sector and the "Information-Culture" sector.

These revolutionary changes cannot originate in the present education systems which would have difficulty in evolving spontaneously. The impulsion for change can only come from outside where, beside the current education system, a new system for the dissemination of knowledge will be devised, a "non-formal" system in the sense of "non-school". Gradually the new system will become able to take over from the old sytem. One day, the school as we know it with its system of "classes" will be a thing of the past.

Developing countries are far less prisoners of the classical education system. In planning their educational requirements, they can save themselves the trouble of building up a costly education system which will only be transitory; they can set up institutions of a genuinely new kind, responsible for imparting knowledge for the teaching of techniques to society.

d) Effects of new education trends on the old education system.

### i) End of encyclopaedism

Information will, henceforth, be imparted more and more by mass communication media. Knowledge memorized in the form of detailed facts about the various subjects taught will become increasingly out-dated. Encyclopedic knowledge will, therefore, logically cease to become the aim of education. The concept of the acquisition during one's schooling of a store of knowledge valid for one's whole existence has become a myth. It will, henceforth, be necessary to learn where and how to secure knowledge, how to select, integrate and utilize the information received. Schooling will, therefore, become less strenuous since it will only be concerned with modes of thought, and the development of the faculty to select and criticize information. Thus lightened, it will comprise less daily, weekly and yearly tasks but will be directed towards genuine intellectual and practical development.

### ii) End of loss of literacy

The loss of the ability to read and write, noted in a certain number of recruits in various countries, will become virtually impossible with a system of permanent education and constant absorption of information.

### iii) End of empirical transmission of knowledge

Formerly the duties to the family and the community, health and sex education and the art of social relations formed the subject of empirical instruction given within the family circle. On the other hand, firms taught their trade and professional code "on the spot", and trade-unionism was learned at work through imitation of older employees. At present, instruction in domestic science, hygiene, trade-unionism, sex, birth-control, use of communications and consumer goods is already leading to the setting up or development of specialized public or private institutions which have functional machinery of their own but also make use of mass communication media.

### iv) End of specialization as the outcome of man's primary school phase

An individual will no longer begin work with a diploma certifying that he has a narrowly-conceived speciality in a scientific (university) or technical subject. To perform the same operations and to solve the same problems scientific and technical progress today makes available new intellectual and mechnical processes which succeed each other with extreme rapidity

Contemporary activities in all spheres call, therefore, for men capable of adapting themselves easily in the context of a certain manner of thinking applicable to a broad field. Such training, produces "polyvalent adaptables" rather than specialists, since the basic training remains very broad and qualifies the student for many other occupations in addition to that aimed at.

To prepare minds to this end, the primary training phase of man, must be general but must at all stages provide for many alternatives. Thus educated, man will be able to undergo "retraining" several times during his life-time. Already Saclay awards only diplomas valid for five years; within this period they will become obsolete.

These new objectives of training imply that professional work or research will have to be carried out by multi-disciplinary teams. Education must, therefore, cease to be competitive between pupils. Education and the ratification of its results must be a matter of team work, the very opposite of the "class" system where one is continually "judged" for what one does by oneself.

### v) End of traditional methods at all levels

All the foregoing considerations condemn what everywhere survives of traditional education methods: memorization, book-learning, lectures by teachers, passive role and immobility of puOils, homogeneity of subjects to be learned by all these traditional methods have become incompatible with adult activity and it is, therefore, adult education, with the kind of relations and communication it implies, which will be the transforming factor for education methods in general.

The personality of children is nowadays taken into account from an early age onwards. They are associated with the life of the family and take part in all discussions and even decisions. Parental authority is thereby weakened. Young people acquire consumer status at an early age, for their parents give them pocket money or buy them the cultural or sports equipment they ask for. The economic system is geared to meet this category of need.

## II Complete democralization of education

Democralization is progressing but obstacles and resistance remain to be overcome which damper it.

Initial injustices, whether due to the impossibility of pursuing studies in youth or to the impossibility of benefiting to the full from a degree or diploma, can in principle, be compensated under a permanent education system which offers, by definition, "new outlet" at any time thanks to the possibility of acquiring higher qualifications. In this respect permanent education constitutes a decisive factor in the democratization of education and careers at a time when the needs of a society based on science and technology mean that no "reserve of talent" must be neglected. The desire for equality at the start thus coincides with the special needs of society. These considerations also apply to women who still do not have equal access to education and careers.

But the term "democratization" also has a second meaning in the education context: "the democratic administration of centres for the dissemination of knowledge and everyone's right to personal and responsible participation in his own education". The need to engage children from the age of reason onwards in responsible activities makes it necessary to impart this trend to the reform of the institutional education structures. This evolution will lead to the abolition of "schools"- designed for specific age groups and organized in "classes"- and their replacement by centres for the dissemination of knowledge and culture covering all age groups of the population.

### a) Consequences for adult education

It will be the needs themselves and the principles, and methods following from the nature, of adult education which will be the increasingly decisive factor and the model for the reform of education as a whole. The democratization of education together with the need for adults to devote a greater part of their leisure time to educational activities have an inescapable consequence: the right for every adult to resume studies which he might have accomplished in his youth but, for one reason or another, could not carry out or complete. This resumption of studies will offer adults highly flexible opportunitites. Similarly, the traditional methods will be replaced by methods of active personalization practiced in small groups, and the adults will find it easier to have recourse to institutions intended mainly for the young.

The "centres for the dissemination of knowledge and culture" should provide adults with possibilities of reorientation, re-training, refresher work, acquisition of supplementary knowledge, cultural development, community activities.

Adult education will develop its structures while being integrated with the new overall education system in which it will be the fundamental factor of change. Just as the democratization and promotion of studies have determined a whole social policy of study grant and of assistance of various kinds the same needs will lead to a social status of adult education. One of the features will be the generalization of a kind of reduction in hours of work: the transformation of hours, days, and weeks of work into "educational leave" with normal pay. The allowances for study expenses or "loss of earnings" (when the studies concerned exceed the duration of the educational leave), will be financed from a new social security branch. The highest vocational training at all levels is essentially of concern to firms but also to the State and to the individual workers themselves; it, therefore, calls for such a method of financement which also has technical, political and psychological advantages.

### B) A model for recurrent education (I)

Within a few years time 11-12 years of schooling will extend to practically all the young people in an age group in many countries. The present tendency is that this expansion will apparently continue at post-secondary level. An increasing proportion of each age group will thus have 15 or more years of continuous education before they go out into the labour market.

It is evident that we cannot go on prolonging youth education by adding constantly new two- or three- years periods.

#### i) Short-term adjustment

In the shifting standard of education lies the seed of isolation between the generations. In consequence of the rapid social development and the accelerating changes on the labor market education received in

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(I) This statement was made by the former Swedish Minister of Education, Mr. O. Palme, at the 6th Conference of European Ministers of Education, (Versailles, May, 1969.) Mr. O. Palme became subsequently Prime Minister of his country.

youth quickly becomes out-of-date. At the same time people must be prepared to change their occupation several times during their working life. Adult education is the only known method for short-term adjustment of supply and demand on the labor market.

2) A second educational chance

Another important and well-known aspect of adult education is that it gives the individual a second educational chance after a period of occupational work, perhaps with greater prospect of success, as occupational experience often provides a special motivation for effective study.

There are, however, several serious problems connected with the development of adult education.

a) The existing facilities for adult education are used principally by persons who already have a satisfactory education.

b) Moreover, it may prove profitable for employers to invest their adult education resources in well educated key persons, while others are worn out andthrown away.

c) It is hardly possible to invest more in adult education without at the same time slowing down the pace of expansion of youth education.

What then will the consequences of this be? A greater part of the population, after some time in professional life, would discover that the education they have received does not suffice. They would wish to return to the school-bench for a time in order to be able to go back to their working life with the possibility of a more interesting and a better paid job. The need to add to their education might even recur not only once but many times during their active life. There would thus be a constantly recurrent education, an interplay between education and other work all through life.

3) A system of recurrent education

We may already assume that we shall not be able to afford an educational system with large elements of recurrent education if youth education is allowed to continue developing at an unchanged rate. Where can the restriction be set in the first place? A restriction of school education, including upper secondary education, would presumably hit pupils from lower social groups. For reason of equality we, therefore, cannot refrain from a youth education for all of 11-12 years as normal length. Moreover, upper secondary education in one form or another will certainly be needed to satisfy the labor market's increasing demand of trained manpower.

The only remaining material possibility is, therefore, to reduce the growth of post-secondary education in order to enable adult education to expand. Let us regard the entire education coming after school education as a unit, organizationally, and from the point of view of resources. This is certainly the central issue of educational policy in the times to come. The best way to illustrate the question is to assume that all post-secondary education is organized on a recurring basis, that all people, after completing upper secondary education go out into a job, that after some time at work, they take another period of education, then return to job again, pass through another period of education and so on.

A system of this kind would have considerable consequence on upper secondary education because in such a system upper secondary education would be the basis both for entry into the labor market and for continued education. Is it then possible or even advisable to organize post-secondary education as a system of recurrent education?

On the one hand it is not feasible in the short run to force all 18- to 20 years old directly into the labor market. On the other hand - radical change of the present conditions seems desirable. A period of practical experience must have an important influence on the choice of education. Experience from working life would bring other advantages. For instance, students would get through their courses more quickly owing to greater motivation for study and a better work routine.

Recurrent education will have many missions. It may function as refresher education, further education and re-education. It may also function as a supplement to youth education for those who did not earlier receive a complete secondary education. It may further have a purely cultural aim.

### 4) Effects on individuals and society

For the individual, recurrent education ought to have several advantages.

a) We all have a need for a variety. The student with educational neurosis and the person in working life with symptoms of stress would both perhaps get to grips with their problems if they were given the opportunity of a change of activity for a time.

b) Recurrent education should help us on the way towards equality in society. The interplay between human activities would result in their being regarded in various respects as on an equal footing. The understanding between different social groups would increase as people had more similar experiences. The relations between the generations would improve.

c) The effect on the labor market is also interesting to speculate upon. It is probable that we would have a possibility of a greatly increased mobility on the labor market, as jobs to a large extent would be of short-term character. Qualified jobs would thus more often be given to holders of lower appointments within the same sphere. Another favorable effect from the equality aspect is that the situation of the older people on the labor market should be considerably brighter, as they would have a chance of keeping up with the needs of their job.

### 5) Risks in the system

What happens to the individual who for social, economic or pyschological reasons does not take his share of the enormous supply of education or does not make use of it in a sufficiently rational way? The gap between him and those who, through greater energy and enterprize, have better been able to make use of the possibilities will quickly widen.

In order that our educational planning may be successful, we must consciously plan for uncertainty. Our knowledge and imagination are not sufficient to give us a reasonably clear picture of what our society will look like in twenty-five to thirty years. And yet it is the Europe of the year 2000 for which we must start to plan today.

### C) Towards the construction of a system of permanent education, by J. Capelle, France (I)

#### 1) The need for synthesis

The attitude towards the need for education differs profoundly as between pupils in the field of formal education and those in informal education. In the case of the former, they are absorbed and propelled forwards by an educational system which functions without sufficiently fostering the incentive of motivation which would make education something to be desired rather than undergone; in the case of the latter, they are often actuated by very strong motives, having had direct experience of the demands and difficulties of a responsible life, but find scanty opportunities of obtaining the education which their motivation would render effective.

For many individuals, a more or less lengthy gap occurs immediately after the period of formal education, as though they needed to recover from a long bout of indigestion in order to regain their appetite of curiosity which had been stifled or blunted by the educational system. In this way precious time is lost before they realize that they need to supplement or refresh their knowledge and that their qualifications are out-dated.

To develop a system of informal education seperated from the ordinary educational system by a sort of "no man's land" is not good enough. What is needed is a unified system combining both the formal and informal aspects of permanent education.

If this is done, the school system will change its terminal character into an initiating function and, therefore, call for thorough reform. School will no longer consist in ladening pupils with the greatest possible amount of knowledge as though, after leaving school, this heavy stock must see them through their whole life's journey; its aim will be to produce "athletes" capable of tackling obstacles and difficulties in a way which requires more "know-how" than knowledge. Much ground still has to be covered before the idea of permanent education can be turned into reality.

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(1) J. Capelle former Rector of Nancy. At present member of Parliament

a) at the research level, first, to analyze the demand among those who are immediately concerned;

b) at the level of public authorities, in order to create facilities equal to demand;

c) at the level of heads of firms, in order that the necessarily "co-operative" movement of permanent education may have the support of wide-scale approval;

d) at the level of public opinion, in order that every man and woman may feel that they themselves are concerned.

### 2) Obligatory retraining

To reach a certain standard of education is a citizen's right and duty. Under the law the exercise of this right is compulsory from the age of 6 to 16; in due course, progress and the demands of society will lead to its extension up to the age of majority.

As regards the question of informal training for adults it should be noted that, in their case, a gradual trend towards compulsory regular refresher training is emerging. It is already included in a number of collective agreements and will eventually appear in civil service regulations. For some years now the "Institut National des Techniques Nucleaires" at Saclay only awards diplomas subject to an undertaking by students to take subsequent further training courses. In addition, to the date of issue, the diploma contains spaces for entries certifying completion of subsequent courses.

Any move in the direction of compulsory adult refresher training should be conducted with circumspection and, in principle, such training should remain optional.

Although refresher training, perhaps with a view to promotion, should remain optional, the practice of such training in every branch of the professions will become more generalized and systematic and possibly, more contractual. Senior grades in firms should spend an hour a day on refresher training and middle management and qualified personnel should have a certain proportion of their working week set aside for this purpose.

Gradually the idea in our society of the diploma spelling security will be rectified. A more dynamic scale of values, a system of promotion based longer on open competition, and a more acute awareness of responsibility will result from reforms in which, on the basis of the type of man to be trained, the schools system will be reconstructed and the entire educational system integrated into effective structures.

### 3) The need to look ahead

The practical implementation of a coherent system of continuous education pre-supposes not only a close liaison with current economic reality but also a proper perspective in relation to the socio-economic developments, that is to say, medium and long-term planning with an eye also to the very long-term outlook.

There is a need for the setting up of a permanent working party which might be called "group 25" and consist of men from different backsground-economists, sociologists, writers, artists, technicians,- working independently of executive authorities with up-to-date forecasts of society a quarter of a century in advance.

Their vision, more poetic than scientific, would guide those responsible for future social conditions and especially educationists on the type of man that is needed for the society of tomorrow. For without the lead of a comprehensive picture of this type of man, the educational system will continue to be fragmented in a mosaic of self-contained activities, each an end in itself.

## 4) The type of man to be trained

The desire and capacity to renew his abilities are the qualities to be looked for in a man of the era of permanent education. He will have to be:

a) Well-balanced, that is to say, he must know how to complement:

- i) intellectual activities with physical activities,
- ii) reason with sensitivity,
- iii) knowledge with imagination,
- iv) power with a sense of responsibility,
- v) individualism with sociability

b) Open-minded, willing to bring himself up-to-date or refresh his knowledge in three fields:

- i) professional skills
- ii) human relations
- iii) personal culture

This last assumes a certain taste for the gratuitous, for the non-profit making and for selflessness.

Let us now consider the professional field: the sum of knowledge continually increases, leading to more and more specialization; but at the same time fields of specialization evolve so that the specialist have to be adaptable.

While knowledge is cumulative, education is selective and there is a growing gap between the sum of knowledge available and the knowledge taught. It is impossible to construct an effective system of informal education unless the formal system is extensively reorganized in order to serve as an introduction to it.

## 5) A new approach to formal education

If one had to outline the direction which formal education should take, some of the following points might be relevant:

a)- a sense of responsibility in the pupil should as far as possible be substituted for an outside control;

b)- education should concentrate less exclusively on the inculcation of ideas and seek also to foster imagination and sensitivity;

c) education should be more active than passive, particularly with regard to the experimental sciences considered as a source of action and creativity;

d)- education should be less exclusively individualistic and allow room for group activities;

e) as regards methods of assimilating knowledge, the emphasis should be shifted from the notion of scholarship to methods of access to documents and the way to select and use them. School libraries, instead of a dull replica of reference shelves for adult scholars, should be laboratories for compiling and consulting card-indexes and documents;

"Know-how", even humanized by "know-how to be", is no longer enough in a changing society: it is the ability to "know-how to become" that has to be developed.

The ultimate purpose of schooling, principally during the phase preceding university entrance, should be more geared to life ahead. For all pupils the prime assets are:

a) the ability to master relations, in particular, means of expression (languages, mathematics, artistic expression) and

b) the methodology of the sciences and sociology.

Subjects of an instrumental nature (whether a part of general education like mathematics, or of practical training, like technology) and the teachings of culture and civilization (which communicate the sense of values on which individual morality and a sense of social commitment are based) will have to be reviewed from the point of view of their mutual adjustment for the training of responsible and open-minded citizens.

The good pupil of tomorrow will not be regarded as a "scholar in miniature" his most important assets will be his powers of initiative and creative ability if his curiosity is to be sustained throughout the period of formal education and to carry him over, once his studies are "complete" and without a time lag, into the phase of informal education.

### 6) Organization of the system of informal education

The time has come to establish structures in order to provide, on a realistic scale, further education for adolescents and for adults up to the age of forty. Insufficient emphasis has been laid on the need to give priority to adolescents who have left school. Often they are unemployed even if they possess a vocational skill, because would-be employers prefer not to take them on until they have done their military service. Moreover, whether or not they have a job, their general education is not sustained and this means that some of them virtually fall back into a state of illiteracy as is shown by army statistics on the educational level of recruits.

This poses the problem of finding ways and means of keeping an educational check on all teenage school-leavers up to the age of majority. Should the idea of compulsory social service for all young people-both boys and girls- aged between 19 and 20, one day take the place of the present system of military service society's care for the training of all its young should extend to and include the period of social service.

The principal needs of adults including vocational retraining are:

a) - Retraining in up-to-date basic scientific and technical knowledge on a level with the most recent teaching programs of the college of origin.

b) - Specialized technical training to enable engineers to keep abreast of new developments in their own specialized fields.

c) --General technical culture.

d) - Training in economic and human sciences.

The following element should be made use of:

a) The potential facilities in schools leave a wide margin for use, without affecting their normal running, at least during weekends or holiday periods;

b) The use of educational broadcast and the teaching aids which modern technology can put at the service of teachers and pupils is only in its infancy. Radio and television are powerful communication media but relatively poor use is still made of them in education;

c) Correspondence courses have had the advantage not only of providing permanent material but of enabling, through the assessment of the individual "feed-back" of every student, in the form of exercises to be corrected, for example, the most important function of teaching to be accomplished;

d) Lastly, schemes of programed instruction, mechanical teaching devices, facilities for recording, evaluation and self marking techniques are all means which should enable workers studying on their own to supplement their training without having to rely solely on the long and wearing assistance of evening classes....

An intelligent co-ordination of all these factors combined with a system of regular group meetings of TV students in order to receive direct information or carry out practical work, should make it possible to eliminate the element of heroism still too often prevalent in "parallel advancement" and offer normal opportunities for training and self-betterment to those who have chosen to leave the educational system before attaining the summit of their ambitions.

Permanent education is the utopia of 1965-1970, like free, compulsory schooling in the years 1880-1885.

# CONCLUSION

Nobody seems to have put the problem of the relationship of University and Society in a truer perspective than Professor Galbraith (1). In a lecture given in 1969, Professor Galbraith recalled his well known thesis that the producer, and no more the consumer is becoming the sovereign influence in economic society.

There was, indeed, a time when the ultimate directing power in economics lied with the individual. The consumer was then ultimately the king. The evidence of the eye, if even the only one, proves that initiative has now come to lie extensively with the producer. The eye sees a vast advertising and sales effort employing elaborate science and art to influence the customer. It sees huge sums expended for this effort. It sees, or senses, great and subtle efforts by the aerospace and like industries to persuade the military to want what they can supply and, by both, to pursuade the Congress and the public.

This shift of power from consumer to producer has given a very new and radically different character to modern industrial state. It leads to the fixing of price and to the persuasion of the private consumer or the State. One of its consequences is that there is an increasingly rigid commitment to a particular product.

This, of course, can lead to extremes. People get the automobiles and roads, instead of houses, not as a sovereign decision but because General Motors is more effectively sovereign than the house builders. Air pollution and the sacrifice of the countryside are not an ultimate individual preference but a sovereign industrial convenience. We will get supersonic transport not because the citizen wants them but because the aerospace and airline industries want them.

How did the shift of power from consumer to producer take place? We understand little, says Professor Galbraith, of the world in which we live unless we realize the very great superiority, for most industrial tasks, of teams of specialists each combining with others his narrow store of knowledge for a result far beyond the capacity of anyone.

The consequence drawn by Professor Galbraith of this change is that by getting more specialized in order to be more efficient society has come to worship and protect organization. More than capital, organization has now become the decisive factor of production. It has, in a way, taken over the decision making.

The present process is that the necessary information is diffused among those who comprise the techno-structure. Since power goes with this knowledge so it is similarly diffused. The exercise of power in the modern mature corporation is impersonal and bureaucratic and depends very little on any one man...We no more know the names of the men who lead the major American corporations in the way we spoke in the past of Henry Ford or John D. Rockfeller.

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(1) Most of the following text is drawn from a speech given by Professor John Kenneth Galbraith, of Harvard University, at a panel discussion between members of the Committee on Science and Technology and members of the Association of Parliamentarians and Scientists of Sweden(RIFO) held in Stockholm on Tuesday, April 22, 1969 on "The Industrial State and its Social and Educational Impact".

But there are things which the producer, however well organized he is, cannot do. For these he must be supported by the modern State. Two problems are of immediate concern for us:

a) The largest and most powerful firm cannot supply itself with the very large amount of trained manpower modern technology, modern planning and modern organization itself requires.

b) Such a firm cannot safely underwrite the costs of the higher form of technological innovations. The development of atomic energy, computer systems, modern weapon systems in the size and uncertainty of their cost has, for all of them, been beyond the financial resources of even the largest industrial corporation.

For each of these two problems (as well as for others mentioned by Professor Galbraith) the solution is that the State must enter to do what the industrial firm, as a planning entity cannot accomplish for itself. The modern State is, therefore, compelled to invest heavily in education. The response to the industrial need explains the great expansion in higher education in modern times.

There would, of course, goes on Professor Galbraith, be the solution of eliminating capitalist control by having social ownership of the industrial system. But we must remember that the capitalist is not relevant per se. He is relevant for his power. If that power has passed to organization, to bureaucracy, it is with organization and bureaucracy that we must be concerned.

Nationalization of industry, socialization, while it is a plausible solution for capitalist power it is not a plausible solution for bureaucratic power. It serves only to substitute a public bureaucracy for a private one... The Soviet-Union has dispensed with the capitalist, but not even its strongest defenders argue that it has dispensed with massive bureaucracy. And here we have the reason for disenchantment by a younger generation of radicals with the Soviet model. Without always realizing it, they are at war, not with capitalist power but bureaucracy power.

The next, and most final, step is the recognition that organization consists of educated and qualified manpower. When capitol was decisive Society and State multiplied banks, saving banks and insurance companies to mobilize savings. Today society and State are multiplying colleges and universities. This is because the first requisite of modern industrial development is a highly developed educational system.

As a consequence this heavy reliance on qualified manpower and on the educational system that it brings into existence is radically altering the patterns of social tension in our time. There is evidence that tension between management and colony is almost certainly declining. Organization is steadily narrowing the social, cultural and attitudinal gap between employers and employee in most industries, since they are all part of organization.

But at the same time new tensions are appearing along another dimension which are gradually taking the place of the tension between management and labor. Modern industry requires that people must be educated well and en masse. This gives them a strong sense of their individuality, a feeling that the industrial masses of the last century did not have. But modern industry requires them also to subordinate their personality to organization to accept the dicipline and beliefs of industrial bureaucracy. There is, indeed, a contradiction, in this situation.

Modern industry is bringing into existence the very people who are the most critical of its disciplines, its management and more generally of its values. And these are the very people industry must subordinate to its discipline persuade as to its products and beliefs. There cannot but be a conflict and this conflict, we find, takes place in all the major industrial countries of the world. Inevitably we find it in most acute form in the United States where this development has gone farthest. And we find it coming to a focus in the universities. University education requires people to respect discipline belief. It prepares people for an organized society that requires it. These are the fundamental reasons for the conflict between university and society.

This is, however, the situation we must face.

Modern industry is in absolute need of educated and qualified manpower. This can be supplied in two ways:

(I) One is aggregate supply which argues for the largest possible volume of qualified manpower. Since manpower is the decisive factor it must be the scarce factor. Therefore, any additional supply can be used within any foreseable magnitude of increase. In agregative terms a surplus of industrially qualified manpower can probably not exist.

(2) The problem of the level of education and specialization is now solved by having the large firm, as a planning unit, seek to foresee its needs, seek to influence the educational system in accordance with these needs and then to fill in the holes either by its own training programs or from the market.

It would accord with the logic of the planning system that those who employ qualified manpower should make a more conscious projection of their needs for manpower of diverse educational level and specializations. This would then be agregrated and returned to the educational system. It would then be the notice to which the educational system would respond.

In the United States, at least, there would be a reluctance to confess that the universities were quite so slavishly in the service of the industrial system.

The reality is that if the University is an adjunct of the industrial system, it had better be an efficient adjunct. It is also our primary duty to ensure that the university also serves the humane and artistic purposes of life. People who realize that they are being prepared as the servants of the industrial system may be encouraged to ask if that is a service they wish to render.

The true problem is, therefore, the tension betwean a highly educated population, highly conscious of its personality, and the beliefs and disciplines of organization.

. . .

What conclusion can we draw from Professor Galbraith's shrewd analysis? There will always be antagonist forces in whatever form of socity man creates. Democracy is still the best mean to prevent the clash of antagonist forces from being harmful to society. No other form of society can at the same time safeguard individual liberty and permit the use of enough authority for organization to be effective.

A thousand years ago the opposite forces in Europe were the Pope (who had the spiritual power) and the Emperor (who held the temporal authority).

The question we may put to ourselves is this one: are these antagonist forces really irreductible? The opposition may only be apparent. So was it with the Emperor and the Pope. The Holy Roman (and Germanic) Empire in the tenth century was of such a nature that both powers were in effect dependent on one another. The Pope crowned the Emperor and annointed him (thus giving him divine power) and got in return recognition and protection. The situation today is somewhat similar. On one side we see organization, the power of production controlled by modern industry whether it be industrial or military enterprizes. On the other side, as a sort of counterpart to this establishment we have the university as center of the new education system. Modern industry and university are the tow sides of one and the same civilization we live in. If we accept this the primary duty of the university is to be focused on the structure of the establishment. The university is not an ivory tower disconnected with life. It is the normal organ where teachers and students exert permanent criticizm of the establishment. The university is thus, in a way, an anti-establishment pressure group which exerts permanent control on the establishment but receives in return from the establishment the necessary means to exist and develop. Thus the equilibrium is restored.

My final statement will be this: Quality and not quantity is becoming the determining factor. So much depends on men and men depend on and influence so much one another. Long term planning must take into account this fourth dimension and its feed back effect. Men and not statistics make the future and universities prepare men for this function.

I will end here. Not because I have covered the ntire field of this vast subject but because I feel I am stepping on to unsafe grounds where faith in mankind takes the place of experimental analysis. It is my firm belief that this also is reality.

University of the Pacific
January, 1971